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A

VARIETIES:

OR,

A SVRVEIGH OF RARE AND EXCEL-

lent matters, neceſſary and delectable for all ſorts of perſons.

Wherein the principall Heads of diverſe Sciences are illuſtrated, rare ſecrets of Naturall *things unfoulded*, &c.

Digeſted into five Bookes, whoſe ſeverall Chapters *with their Contents are to be ſeene in the Table after* the Epiſtle Dedicatory.

By

DAVID PERSON, of *Logblands* in *Scotland*, Gentleman.

Et quæ non proſunt ſingula, juncta juvant.

LONDON,

Printed by *Richard Badger*, for *Thomas Alchorn*, and are to be ſold at his ſhop, in *Pauls Church-yard*, at the ſigne of the grene-*Dragon*. 1635.

To

THE MOST NOBLE AND ILLVSTRIOVS, IAMES,

DUKE OF LENNOX, EARLE *Darnley* and *Marche*, *Baron* of *Setrington*, *Treboulton* and *Methuen*, LORD Great *Chamberlane* and *Admirall* of *Scotland*; Gentleman of his MAIESTIES *Bedchamber*; Knight of the moſt Noble order of the *GARTER*, and one of the moſt Honourable Privy COUNCELL, in both KINGDOMES.

(* * *)

WHo ſacrificed unto their Gods of old (moſt Noble and illuſtrious Prince) were accuſtomed to appropriate the matter of their offerings, as neere as they could, to the nature and better

better acceptance of the Deity to whom they immolated; as to *Mars* a Horſe, to *Phœbus* a Cocke, to *Venus* a paire of Doves, to *Vulcan* fire, and the like; in this Dedication I doe not much deviate from that ceremony, for as your Gr. knowledge is generally obſerved to bee multifarious, and as the many ſucceſsive moſt famous Vertues of your illuſtrious Predeceſſors doe moſt conſpicuouſly ſurvive in you, ſo no where more duely could this volume of Varieties be ſacrificed then to your Gr. Larger merits, which have learned *Spaine* and other Countreys to ſpeake you every way moſt generous and Noble; and which favourably ſhined upon by our moſt glorious Sun, makes all conclude you to prove in your maturer yeares both delightfull and profitable to King and Countrey. What my continued night-watches, ſtudies, travells, and expences have beene in theſe recollections, I will think worthily beſtowed if they be graciouſly accepted; and if they be thought worthy of your Graces Patronage, I have my wiſh: Meane gifts have beene favourably receaved by moſt worthy men; the PERSIAN KINGS diſdaine not

their

their Peasants cups of water; not *Donum* but *Dantis animus* is most acceptable; and with what integrity of affection I offer this, shall appeare in what more worthy labour shall come from me hereafter; which already is devoted to your G. most worthy Patronage; as are my perpetual Orations to God for increase of all happinesse to be heaped on you; which shall be still seconded with the most reall and best services that are in the possibility of

---

Your G. most humble and
most zealous devoted servant.

D. Person.

The first Booke of Varieties.

CONTAINING,

A DISCOVRSE AND DISCOVERIE OF some of the Rarest and most Profitable secrets of naturall things, whether in Heaven, Aire, Sea, or Earth.

As of
- *The Heavens, Sunne, Moone, and Starres, their Matter, Nature, and Effects, &c.*
- *The Ayres Regions, and their effects, &c.*
- *The Seas saltnesse, deepenesse, and motion.*
- *The Earths circumference, and distance from the Heavens: by way of Question and Answer.*

The Preface to the following questions; wherein is *set downe the Praise, Effects, Vses, Ends and Parts of Philosophy.*

SEEING Philosophy (which is the love of Wisdome, and of the knowledge of divine and humane things) by auncient Philosophers and Wise men in their severall ages, was accounted not an invention of mortall men, but a precious Iewell, and an inestimable propine, sent downe from the Gods above; The praise of Philosophy.

Thereby, in a manner, to make men partakers of their divine knowledge: which made the Poets feigne *Minerva* (the patroneſſe and preſident of wiſdome) to have iſſued from *Iupiter*'s braine, and the Muſes (nurſes of learning) to be his daughters) it is no wonder that *Plato* in his *Timæo*, and *M. T. Cicero*, do ſo highly extoll the knowledge of it, giving to it the Attributes of the Searcher of vertue, the Expeller, and chaſer away of vice, the Directer and guider of our lives, the Builder of Cities, Aſſembler of men, (for before that knowledge, they ſtrayed through Wilderneſſes like bruit Beaſts) the Inventer of Lawes, Orderer of manners, Promover of diſcipline, Inſtructer of morall good living, and the meane to attaine a peaceable and quiet death. Finally, ſeeing by it we arrive at the perfect underſtanding (at leaſt, ſo farre as humane wit can reach) of all the ſecrets that Mother Nature containeth within her imbraces, whether in the Heavens, Aire, Seas, Earth, and of all things comprehended within or upon them.

Effects of Philoſophy.

What time can we better ſpend here on Earth, than that which we imploy in the ſearch of her moſt delightfull inſtructions? for thereby every ſort of men, whether Moraliſt or Chriſtian, may have his knowledge bettered; which made Saint *Paul*, and before him *Ariſtotle* confeſſe, that by the knowledge of theſe viſible things we might be brought to the knowledg, admiration, and adoration of our great and powerfull GOD, the Maker of Nature; for the knowledge of naturall things, and of their cauſes, leadeth us (as it were) by the hand to the ſearch of their Author and Maker. This the Poet points at, when he ſang,

Vſes and ends of Philoſophy.

Præſentemque

Præſentemq́. refert quælibet herba Deum.

There is nothing ſo meane in Nature, which doth not repreſent unto us the Image and Power of the Maker; and argue, that none but He could have been their Former. And it is this ſort of Knowledge, which properly we call Philoſophy, or Phyſick, which in this Treatiſe I intend moſt to handle; and by which, as by one of the principall parts of Philoſophy, the reader may have an inſight in the Cabals and ſecrets of Nature.

The Philoſophers and Learned ſort reſerved, in a manner, to themſelves the other parts of Philoſophy, as not being ſo abſolutely neceſſary for all to underſtand, except a very few, and theſe pregnant wits only: For Logicke, the firſt and loweſt of all, is but as an Inſtrument neceſſary for the other parts, wherewith to ſerve themſelves, by ſubminiſtring grounds and wayes of reaſoning, thereby to inforce concluſions of the precedents, which they propounded. Of Logick.

Metaphyſicks againe, contrary to the Phyſicks, medleth with things tranſcendent and ſupernaturall, wherto every reader is not called, and wherof al alike are not capable; neither are the Mathematicks befitting every ſpirit, giving hard eſſayes even to the moſt pregnant wits, all not being alike capable of the dimenſions and menſurations of bodily ſubſtances; no more than all are for the Military precepts and Architecture, Printing, Navigation, Structure of Machins, and the like; which are things conſiſting in Mechanick and Reall doings: neither are all alike able for Muſick, Arithmetick, Aſtronomy, Geometry, &c. Of Metaphyſicks. Of Mathematicks.

whereas all men as fellow-inhabitants of one World, and the workmanship of one Hand, by an inbred propensenes, w^th a willing desire are carried to the search of things meerely Naturall: though, as in a Citie, Common-wealth, or Principality all in-dwellers are not alike, neither in honour, dignity, nor charge.

The Authors Apologie.

If in the discovery of these Mysteries and secrets of Nature, I answer not the vast expectation of the overcurious; the more modest and discreet Reader will rest satisfied, that I inferre the most approved Reasons of the more Ancient and Moderne Philosophers, and such men as have most Copiously treated of them; thereby to ease thee and all men of the like paines and turmoile, that I have had in the search of these secrets; which if they bring thee that content & satisfaction that I desire and intended for thee; I am assured of a favourable applause, and have the reward I expected.

Section 1.

Of the matter whereof the Heavens are composed with the confutation of various opinions of Philosophers concerning it.

ALthough the world, and all comprehended within its imbraces, is the proper subject of Physicke, and that Physiologie is nothing else but a Discourse of Nature, as the Greek Etymologie sheweth, and so were a fitting discourse for this place; yet because the questions which concern a Christian to know, against the Philosophicall conceits; (Of the Worlds eternity,

Questions concerning the World.

its

his pre-existent matter, that it had a beginning, but shall never have an end: if there be more worlds than one? If the world be a living Creature, in respect of the Heavens perennall and incessant rotation, and the Ayres continuall revolution; the Seas perpetuall ebbing and flowing; the Earths bringing forth, or conceiving fruit alternatively, &c. Because, I say, these questions of the World, together with these, if there was a World before this which is now? or, if there shall be one after this is consummated? if there bee any apart by this?) are handled in the Chapter of the World in this same Booke; I passe them for the present, and betake me to the more particular questions more necessary to be knowne, and lesse irreligious to be propounded.

And because the Heavens, of all the parts of the World are most conspicuous, as that whereto ever we bend our eyes, being the most glorious Creature of all the Creators workes; at it I will begin: but as I said, I would alwayes have the Reader to understand that I propound these questions not so absolutely of mine owne braine to solve them, as to give him a view of the variety of opinions; yea, of the most learned in these high and sublime questions, whereat we may all conjecturally give our opinions, but not definitively, while it please the great Maker to bring us thither, where we may see Him and them more cleerely.

The way how these questions are propounded.

Quest. First then, I aske of what matter are the heavens composed?

Answ. Diverse have beene the opinions of Philosophers upon this subject: For *Averroes* in his first booke of the heavens, and there in Text 7. and

tenth, holds it to bee ſo ſimple a body that it is free from all materiall ſubſtance; which opinion of his, by this may be refelled, that with *Ariſtotle* in the eight booke of his *Metaph. chap.* 2. and in his firſt booke *De cælo,* and Text 92. What ever things falles under the compaſſe of our ſenſes, theſe ſame muſt bee materially ſubſtantiall: But the heavens are ſuch, and therefore they muſt be materiall. Beſides that all movable Eſſences conſiſt of matter and forme, as *Ariſtotle* in his ſecond booke of Phyſicke *chap.* 1. holdeth. But ſo it is that the heavens are movable, therfore they cannot be free of matter.

Diverſe opinions of the heavens ſubſtance.

Queſt. Seeing then it is evinced by argument, and concluding reaſons, that the heavens doe conſiſt of matter; I aske now, what kinde of matter are they compounded of?

Anſw. The Philoſophick Schooles in this point are different: Some of them maintaining, a like matter to be common with them, and the ſublunarie bodies, that is, that they were compoſed of the foure elements, of which all things here below doe exiſt. Neither lacked there ſome Sects that gave forth for truth, that the heavens were of a fierie and burning nature, which opinion *Ariſtotle* confuteth by many reaſons in his firſt Book, *De cælo chap.* 3. eſtabliſhing his owne, which have beene held for truth not only by his Sectaries the Peripateticks, then; but ever ſince have beene approved; which is, that the matter of the heavens being diſtinct in nature, from that of the foure elements of which all other ſublunarie things are framed, muſt bee compoſed of a quinteſſence; which opinion of his he thus maintaineth againſt the

What is the true matter & ſubſtance of the firmament.

Platoniſts

Platoniſts and all others who maintained that it was framed of the moſt pure and mundified part of the foure elements: for (ſaith hee) All ſimple motion which we finde in nature, muſt belong unto ſome ſimple body; But ſo it is that we finde a circular motion in nature which no wayes appertaineth unto any of the elements, in regard that in direct line, they either fall downeward, as the waters and earth; or elſe they aſcend upward, as the ayre, and fire: And it is certaine that one ſimple body, cannot have more proper and naturall motions than one. Wherefore it followeth of neceſſitie, that ſeeing none of the elements have this circular motion as is before verified, therefore there muſt be a diſtinct ſimple body from them, to which this motion muſt appertaine, and that muſt be the heaven.

As for thoſe who enforce identitie of matter in kind, betwixt the heavens and theſe elementarie things below, and conſequently would involve them under corruption, which is peculiar to all other things; their warrant is of no validitie: for although they take upon them, to demonſtrate, by their late *Aſtronomicall* obſervations in the *Ætherian* region, new prodigies not obſerved nor remarkable heretofore, which both *Ruvius* and the *Conimbricenſes* give forth to proceed from a corruption, and defect of the firſt cauſe from whence they flow; They miſtake: in ſo farre as they are rather extraordinary workes of the great maker, threatning mortalls by their frownings, then other wayes Symptomes of the Celeſtiall Paroxyſmes and corruption. Neither muſt you underſtand that I doe ſo adhere unto the heavens incorrup-

tibility, that I thinke it free from all change, but contrarily rest assured that at the last conflagration, it shall suffer a change and novation, but no dissolution, as the low elementarie world.

Quest. You conclude then that the heavens are of a fift substance, not alembecked out of the foure elements, but an element by it selfe, having it's owne motion severall from the others which is a circular one?

Answ. Yea, truly I doe.

The earth rolled about with the heavens.

Quest. But now seeing all circular motion is such, that it hath some immoveable thing in the middle of it, whereabout it whirleth ever, as we see in a Coach Wheele and the axeltree: What is this immovable thing, whereabout the heavens circular rotation, and perpetuall motion is?

Answ. The Globe of the earth, which (whatsoever fond conceit *Copernicus* had concerning the motion of it) yet remaineth firme and immovable.

And the heaven doth rolle still about this earth, and hath still as much below it as we see round about and above it.

Sect. 2.

Of the Starres, their substance and splendor, where also of the Sunnes place in the firmament.

Quest. But I passe from the motion of the heavens, and their matter, which you hold to be a quintessence, and so a thing distinct from the foure elements.

ments. Now I crave to underſtand, what is the matter of theſe twinckling Starres which we ſee glancing in the face and front of this heaven?

Anſw. Of that ſame matter whereof the heavens are, becauſe in ſimple and not compoſed bodyes their parts doe communicate with that ſame nature, and matter whereof the whole is; ſo that the heaven being a moſt ſimple body, and the Starres, her parts or a part of it, no wonder that they communicate both of one eſſence; and of this opinion is the Philoſopher himſelfe in his ſecond booke *De cælo. chap.* 7.

What is the ſubſtance of the ſtars.

Queſt. But if ſo be (as you ſay) the ſtarres are of a like matter with the body of the heavens; how then is it that they are a great deale more cleare and glauncing where they appeare, then the reſt of the heaven is?

Anſw. Becauſe they are the thicker part, and better remaſſed together, and of a round Spherick forme, and ſo more ſuſceptible of light. Now round they muſt be, for beſides, that we diſcerne them ſo with our eyes; the Moone, and Sunne, are found to bee round. But ſo it is, that all Starres are of a like forme and matter, but the leſſer and the bigger differ only by the leſſer or greater quantity of their matter condenſed, or conglobed together.

What maketh them ſo cleare.

Queſt. But whether doe they ſhine with their own innate or inbred light, or is their ſplendor borrowed from any other beſide?

Anſw. Some ſuch light they have of their owne; howbeit but little, whatſoever *Scaliger* ſaith to the contrary in his ſixtie two exercitation.

But indeed, the brightneſſe of the Starres light

floweth

floweth from the Sun, the fountaine of all light, and that this is either leſſer or more, according to their diverſitie of matter, and their equality and inequality, there is no queſtion: For which cauſe the Sunne is placed in the midſt of all the moveable Starres, as in the midway betwixt the ſtarrie firmament, and the firſt region of the aire, from thence to communicate his light unto all; ſo that thoſe which are nearer unto him above, and to us below, doe ſeeme brighter than theſe higher above; as may be ſeene in *Venus*, *Mercurie*, and *Luna*.

The Sun placed amiddeſt the Planets & why.

Sect. 3.

Of the Moone, her light, ſubſtance, and Power over all ſublunarie bodyes.

Queſt. NOw reſolve mee, if the Moone hath not more light of her ſelfe then the reſt?

Anſw. Yea ſhe hath a glimps of light indeed of her ſelfe, but that is dimme and obſcure; as may be ſeene in the ſharp-new (as we ſay:) but as for the fulneſſe of that light wherewith ſhee ſhineth unto us at the quarters or full, ſhe borroweth that from the Sun. But we may better conceive the weakneſſe of her light in her eclipſes; when the earths ſhadow, interpoſed betwixt the Sun and her directly, vaileth and masketh her face; which then appeareth blackiſhly browne, yet not altogether deſtitute of light. Now as the light of the Sunne is the fountaine of warmeneſſe by day; even ſo, no queſtion, but the winter and Summer

What light the Moone ſhineth with.

Summer nights, are at a full Moone warmed more, then during the firſt or laſt quarters.

Queſt. But is it true which is uſually reported, that in the body of the Moone there be mountaines, and valleys, and ſome kinde of ſpirituall creatures inhabiting; which *Palingenius* an Italian Poet deſcribeth at length?

Anſw. It is certaine, and our *Mathematicians* have found out, that in the Moone there are ſome parts thicker, ſome thinner, which make her face not to looke all cleare alike; for that dimmer blackeneſſe in the middle of it (vulgarly called the Man in the Moone) is nothing elſe but a great quantitie of the Moones ſubſtance not ſo tranſparent as the reſt, and conſequently leſſe ſuſceptible of light: which black part of it, with other ſpots, here and there *Plinius lib. 2. cap. 9.* of his Naturall hiſtorie taketh to be ſome earthly humors attracted thither by her force, and attractive power; which I hardly give way to, in reſpect of the weakneſſe of her force to draw to her any heavy dull and earthly humor, which never tranſcend the regions of the aire, above all which the Moone is.

what ſignifieth the black ſpots in the face of the Moone.

Queſt. Now finally, hath the Moone no power over particular ſublunary bodies? for I heare much of the influence and power of the Planets over the bodies of Men, Beaſts and Plants.

Anſw. As for the power and efficacy of the other Planets over us, I have ſomething in the title of Necromancie. As for the Moones power experience ſheweth, that the ebbes and flowes of the Sea, (how different ſo ever the Coaſts be) depend totally and

conſtantly

The Moones power over ſublunarie bodies.

conſtantly on the full and change of the Moone; for accordingly her waters ſwell, or decreaſe. Moreover the braines and marrow in the bones of Man and beaſt doe augment or diminiſh as the Moone increaſeth, or waneth, as doe likewiſe the fleſh of all ſhell fiſhes. Dayly experience too hath taught your Pruners of trees, gelders of cattell, gardners and the like, to obſerve the Moones increaſe, and decreaſe: all which is ſtrongly confirmed by *Plinie* in his ſecond booke *De Hiſtoria animalium*, and *Ariſtotle lib.* 4. *cap.* 41. *De generatione animalium.*

Sect. 4.

Of the Element of Fire, whether it be an Element or not, and of its place.

Queſt. LEaving the heavens, their number, matter, Sun, Moone and Starres, I come lower unto the foure Elements whereof the Philoſophers will all things below the Moone to be framed and made.

Reaſons that there is not an element of fire.

Firſt, then I adhere to *Cardan* and *Volaterans* opinion, that betwixt the ſphere of the Moone, and the firſt region of the aire, where the Philoſophers place this fire to be, which they make the firſt element, it cannot be, and ſo that it cannot be at all; becauſe, that if it were there, we ſhould ſee it with our eyes; for the Comets, and theſe lancing Dragons, and falling Stars, *&c.* whereof many are neighbours with this Ignean-ſphere, we viſibly ſee, and the fires which burne on earth alſo.

Anſw.

Anſw. There is not a point of Philoſophy, which if you reade judiciouſly, and peruſe the Authors treating thereupon, but you ſhall finde ſuch controverſie, concerning the eſtabliſhing of it amongſt themſelves, that one to an hundred if you find two or three jumpe together.

Queſt. But yet as a Mirrour or Glaſſe giveth way unto diverſe faces, and repreſenteth unto every one their owne viſage, although never ſo farre different from other, while it of it ſelfe remaineth unchanged or unaltered: So it is with truth, how different ſoever the opinions bee of the ſearchers out of it in any Science; yet this verity it ſelfe abideth in them all, and is alwayes one and alike in it ſelfe: and ſo in this point, whatever be *Volateran* or *Cardans* opinion, yet ſure it is, that the Element of fire is there; and the cauſe why it is not ſeene as are our materiall, and groſly compoſed fires, of all the Elements mixt together; is the pureneſſe, ſubtileneſſe, and ſimplicity (if I may ſay ſo) of that Element. Which reaſon may ſerve too againſt them when they ſay, that if it were there, it ſhould burne all about. And which, likewiſe, may ſerve for anſwer to the objection of the Comets, which are ſeene: ſeeing they are of a terreſtriall maligne exhalation, and ſo having in them that earthly mixture, and being inflamed by the neighbour-heate of that fiery Element; no wonder though they bee ſeene, and not it; her ſubtile pureneſſe being free of all combuſtible matter, and ſo the leſſe conſpicuous to our eyes. τὸ διαφανὲς *ſive perſpicuum, niſi condenſetur,* ἐστὶ ἀόρατον, *quia viſum non terminat*, Iul. Scal. *Exer. 9.*

Comparison of a Mirrour to variety.

Why Comets are ſeene and not the Element of fire.

There is no ſuch queſtion about the ſecond Element

ment which is the Aire: for of it all agree, that it hath three regions wherein all theſe you call Meteors are faſhioned, as clouds, haile, ſnow, thunder, wind, and dew; yea, and higher than all theſe, in the firſt and ſupreme Region theſe blazing Comets, although other men place them above the Moone, which are ſo formidable to ignorants who know not the cauſes of their matter.

Queſt. Is this ſo as you give it forth?

Anſw. It is of verity, that the firſt Element which we call the Element of fire, is diſputable, and hath beene denied by many: but as for the Ayre, none (to my knowledge) ever called it in queſtion; neither is there in all our Philoſophy a ſubject more fitting a man of ſpirit to know, than the diſcourſe of the Meteors therein framed; of all which, although you have a tractate hereafter, by it ſelfe, yet one word here more to make you underſtand their nature, and matter, the better.

Knowledge of Meteors fit for men of ſpirit.

Section 5.

A briefe Diſcourſe of Meteors, of their cauſes, matter, and differences.

THE great Creator hath ſo diſpoſed the frame of this Vniverſe, in a conſtant harmony, and ſympathy amongſt the parts of it; that theſe Heavenly Lights, which wee ſee, above our heads, have their owne force, power, and influence, upon this Earth, and Waters, whereon, and wherein we live; marying (as

(as it were) theſe two ſo farre diſtant Creatures, both in place and nature, by the mediation of this Ayre above ſpoken of; which participateth of both their qualities; warmeneſſe from the Heavens, and moiſtneſſe from the Earth and Waters. Nature then, but *Melior naturâ Deus*, or GOD, better than Nature, hath ordained the Sunne, Fountaine of light and warmth, to be the phyſicall or naturall cauſe, yea, and the remoteſt cauſe, (as wee ſay in the Schooles) of theſe Meteors; as *Ariſtotle* himſelfe in his firſt Book of his Meteors, *cap.* 2. obſerveth.

The remoteſt cauſe of Meteors.

When I ſpeak of the Sun as moſt principall, I ſeclude not the Stars, and theſe celeſtiall bodies, which rolling about in a per-ennall whirling and rotation, doe lance forth their power upon the Earth alſo. The neereſt Phyſicall or naturall cauſe againe, muſt be underſtood to be cold and heate; heate from theſe heavenly bodies, to rarifie or attenuate the vapors of the Earth, whereby they may bee the eaſier evaporated by the Sunne; or heate, to draw fumes and vapours from the Earth upward; cold againe, to condenſate and thicken thoſe elevated vapours in the Ayre; to thicken them, I ſay, either in clouds, raine, or ſnow, or the reſt.

The neereſt cauſe.

Thus, as the Meteors have a twofold cauſe as you have heard, ſo have they a twofold matter. The firſt and remoteſt, are the two Elements, but of them chiefly Earth, and Water: the neerer cauſe or matter are exhalations extracted from theſe former two. Which exhalations I divide in fumes and vapours: fumes being a thin exhalation hot and dry, elevated from the Earth; and that of their moſt dried parts, by the

Their remoteſt matter.

the vertue of the heavenly Starres, and the Sunnes warmeneſſe elevated, I ſay, by the vertue and warmneſſe of the Sunne and Stars, from the drieſt parts of the Earth, even the Element of fire, from whence, and of which, our Comets, fiery-Darts, Dragons, and other ignean Meteors doe proceed; although later Aſtronomers have found and give forth, ſome of the Comets formation to be above the Moone.

Matter and cauſe of the moiſt Meteors.

Whereas vapours are exhalations, thicker, and hotter, ſwifter drawne up from the Seas and Waters by the power of the Sun and Stars; of which vapors, thither elevated, are framed, our raines, ſnow, haile, dewe, wherewith (they falling back againe) the Earth is bedewed and watered: When, I ſay, that theſe vapours are hot and moiſt; thinke it not impoſſible, although the waters, their mother, be cold and moiſt; for that their warmneſſe is not of their owne innate nature, but rather accidentall to them by vertue of the Sunne and Starres warmneſſe; by whoſe attractive power, as the efficient cauſe, they were elevated. Now then as of fumes, elevated to the higheſt Region of the Ayre, the fiery Meteors are compoſed: ſo of their watery vapours which are drawne no higher than the middle Region, proceeds raine, clouds, ſnow, haile, and the reſt; or if they paſſe not beyond this low Region wherein we breath, they fall downe into dew, or in thick myſts.

Difference betwixt fumes and vapours.

Thus you ſee, that theſe vapours are of a middle or meane nature, betwixt the Ayre and the Waters; becauſe they reſolve in ſome one of the two eaſily; even as fumes are medians betwixt fire and earth, in reſpect that they are eaſily tranſmuted or changed in the one or the other.

And

And thus as you have heard the efficient and materiall cauſes of Meteors: So now underſtand that their forme dependeth upon the diſpoſition of their matter, for the materiall diſſimilitude, either in quantity, or quality, in thickneſſe, thinneſſe, hotneſſe, drineſſe, aboundance, or ſcarcity, and ſo forth, begetteth the Meteor it ſelfe, different in ſpecies and forme, as if you would ſay, by the aboundance of hot and dry exhaled fumes, from the Earth, and the moſt burnt parts thereof are begot the greater quantity of Comets, winds, thunders; and contrary-wayes by the aboundance of moiſt vapours, elevated by the force of the Sunne from the Seas and waters, we judge of aboundance of raine, haile, or ſnow, or dew, to enſue, according to the diverſe degrees of light in the Ayrie Region whither they are mounted.

Great differences of the Meteors.

Now, when I ſaid before, that hot exhaled fumes are ever carried aloft, to the higheſt Region of the Ayre; take it not to be ſo univerſally true, but that at times, they may be inflamed even in this low Region of ours here; and that through the Sunnes deficiency of heate, for the time: for as the uppermoſt Region is alwayes hot, the middle alwayes cold, ſo is the lower, now hot, now cold, now dry, and againe moiſt, according to the Sunnes acceſſe, or receſſe from it, as *Ariſtotle, lib. 1. Meteo. cap. 3.* noteth. And of this ſort are theſe even viſible inflamations, which in the Seas are ſeene before any ſtorme, flaming and glancing now and then, as I my ſelfe have ſeene; yea, and ſometimes upon the tops of Ships maſts, Sterne, and Poope, or ſuch as in darke nights now and then are perceived to flutter about Horſe-meines and feet,

What are our S. Anthonies fires.

or amongſt people gone aſtray in darke nights. And theſe our *Meteorologians* call *Ignes fatui & ignes lambentes*, wilde-fires.

Sect. 6.

That the earth and waters make but one globe, which muſt be the Center of the world. Of the Seas ſaltneſſe, deepneſſe, flux, and reflux; why the mediterranean & Indian Seas have none; Of Magellanes ſtrait, what maketh ſo violent tyde there, ſeeing there is none in the Indian Sea from whence it floweth. Of the Southerne Sea or Mare del Zur.

THus then leaving the Aire, I betake me unto the third and fourth elements, which are the earth and waters; for theſe two I conjoyne in the Chapter of the world, and that after the opinion of the moſt renowned Coſmographers, howbeit *Plinius Lib.* 2. *Naturalis Hiſtor, cap.* 66. and with him *Strabo lib.* 1. diſtinguiſh them ſo, as they would have the waters to compaſſe the earth about the middle, as though the one halfe of it were under the waters, and the other above, like a bowle or Apple ſwimming in a veſſell: for indeede *Ptolomee* his opinion is more true, that the earth and waters, mutually and linkingly embrace one another and make up one Globe, whoſe center ſhould be the center of the world.

The earth and waters not ſevered like the other elements but linked together.

Queſt. But here now I aske, ſeeing the frame of the univerſe is ſuch that the heaven circularly encompaſſeth the low ſpheares, each one of them another, theſe the fire,

fire, it the Aire, the aire againe, encompaſſeth the waters; what way ſhall the water be reputed an element if it obſerve not the ſame elementarie courſe, which the reſt doe, which is, to compaſſe the earth alſo, which ſhould be its elementarie place?

Anſwer. True it is, that the nature of the element is ſuch; but GOD the Creator hath diſpoſed them other wayes, and that for the Well of his Creatures upon earth. Who, as he is above nature and at times, can worke beyond, and above it, for other wayes the earth ſhould have beene made improfitable, either for the production or entertainement of living and vegetable Creatures, if all had beene ſwallowed up and covered with waters; both which now by their mutuall embracing they do: hence neceſſarily it followeth, that the Sea is not the element of water, ſeeing all elements are ſimple and unmixt creatures, whereas the Seas are both ſalt, and ſome way terreſtriall alſo.

Why the waters are not about the earth.

How deepe hold you the Sea to be?

Queſt.

Anſw. Proportionably ſhallow or deepe; as the earth is either ſtretched forth in valleys or ſwelling in mountaines, and like enough it is, that where the mouth of a large valley endeth at the Sea, that ſhooting as it were it ſelfe forth into the ſaid Sea, that there it ſhould bee more ſhallow then where a tract of mountaines end; or ſhall I ſay that probably it is thought that the Sea is as deepe or ſhallow below, as commonly the earth is high in mountaines, and proportionably either deepe or ſhallow as the earth is either high in mountaines or low and ſtreacht forth in vallies?

But what reaſon can you render for the Seas ſaltneſſe?

Queſt.

Anſw.

Answer. If we truſt *Ariſtotle* in his 2 booke of Meteors and 3. as he imputeth the ebbing and flowing of the Sea to the Moone, ſo he aſcribeth the cauſe of its ſaltneſſe to the Sunne, by whoſe beames the thinneſt and ſweeteſt purer parts of it, are extenuated and elevated in vapors, whileſt the thicker and more terreſtriall parts (which are left behind by that ſame heate) being *aduſt* become bitter and ſalt; which the ſame Author confirmeth in that ſame place before cited, by this, that the Southerne Seas are ſalter, and that more in Summer, then the others are; and inforceth it by a compariſon in our bodies, where our urine by him is alleadged to be ſalt in reſpect that the thinner and purer part of that moiſtneſſe, by our inborne warmeneſſe is conveyed and carryed from our ſtomack (wherein by our meate and drinke it was engendred) thorough the reſt of the parts of our body: Neither leaveth he it ſo, but in his Problems *Sect* 23. & 30. for corroboration hereof he maintaineth, that the lower or deeper the Sea-water is, it is ſo much the freſher, and that becauſe the force of the Suns heat pierces and reaches no further, then the Winter Cold extendeth its force for freezing of waters unto the uppermoſt ſuperfice only, and no further.

If it bee true then that the Seas are ſalt, wherefore are not lakes and rivers by that ſame reaſon, ſalt alſo?

Why lakes and running flouds are not ſalt.

Answer. Becauſe that the perpetuall running and ſtreames of rivers in flouds hindreth that, ſo that the ſun beames can catch no hold to make their operation upon them: and as for lakes, becauſe they are ever infreſhed with ſtreames of freſh ſprings which flow

and

and run into them, they cannot be ſalt at all: the ſame reaſon almoſt may ſerve to thoſe who aske, what makes ſome ſprings ſavour of ſalt, ſome vitrioll, ſome of brimſtone, ſome of braſſe and the like? To which nothing can be more pertinently anſwered, then that the diverſity of mineralls through which they run, giveth them thoſe ſeverall taſtes.

Why ſome fountaines ſavour of braſſe, or ſalt, &c.

What have you to ſay concerning the cauſe of the flowing and ebbing of the Sea?

Queſt.

Anſw. To that, all I can ſay is this, that *Ariſtotle* himſelfe for all his cunning was ſo perplexed in following that doubt, that he died for griefe becauſe he could not underſtand it aright, if it be truth which *Cælius Rhodiginus lib. 29. antiquarum lectionum cap.* 8. writeth of him; it is true indeede (yea and more probable) that many aſcribe the cauſe of his death to have beene a deepe melancholy contracted for not conceaving the cauſe aright of the often flowing and ebbing of Euripus a day, rather than to the not knowing the true cauſe of the Seas ebbing and flowing chiefly, ſeeing Meteor. 2 & 3. he aſcribeth it to the Moone the mother and nurſe of all moiſt things; which is the moſt receaved opinion, and warranted with the authoritie of *Ptolomee* and *Plinius* both, as depending upon her magnetick power, being of all Planets the loweſt, and ſo the neerer to the Sea; which all doe acknowledge to bee the miſtris of moiſture, and ſo no queſtion but to it it muſt be referred, which may bee fortified with this reaſon. That at all full Moones and changes, the Seas flowing and ſwelling is higher then at other times, and that all high ſtreams and tydes are obſerved to bee ſo, ſeeing the

Of the Seas ebbing and flowing.

Moone doth ſhine alike upon all Seas, what is the cauſe that the Mediterranean Sea, together with the Weſt Indian-Seas, all along *Hiſpaniola* and *Cuba* and the Coaſts, waſhing along the firme Land of *America*, to a world of extent, hath no ebbing nor flowing, but a certain ſwelling, not comparable to our Seas ebbing and flowing?

Why the Mediterranean & Weſt-Indian Seas have no flux or reflux.

Anſw. *Gonſalus Ferdinando Oviedes* obſervation in his Hiſtory of the Weſt-Indian-Seas, ſhall ſolve you of that doubt; and this it is, He compareth the great Ocean to the body of a man, lying upon his back, reaching his trunck from the Pole Artick (from the North and Eaſt) to the Antartick, South & Weſt; ſtretching forth the left Arme to the Mediterranean, the other to the Weſt-Indian-Seas; now the Ocean (as the lungs of this imagined body) worketh, by *Syſtole* and *Diaſtole* on the neerer parts to it, & maketh a flux and reflux where its force faileth in the extremities, the hands and feet, the Mediterranean and Indian Seas.

Of Magellanes Strait, what maketh ſo violent a tyde there.

Queſt. How is that poſſible; that you admit no flux nor reflux to the Weſt-Indian-Seas; ſeeing their Hiſtories informe us, that at *Magellanes*-ſtrait, that ſame Weſt Sea doth glide through the firme land of *America*, into the *Mare Del Zur*, and that with ſuch rapiditie and vertiginouſneſſe, that no Ship is able with Wind or Art to returne from that South-Sea backward?

Anſw. That muſt not be thought ſo much a flowing as the courſe of Nature, whereby the Heavens, Sun, Moone, and Stars, yea, and the Sea, doe courſe from Eaſt to Weſt, as that Strait doth run. I may joyne

joyne to this the Easterly-wind which of all others bloweth most commonly (as elsewhere) so there also, which furthereth that violent course: and of this opinion is *Peter Martyr* in his Decads upon the Historie of that Countrey.

Quest. Admit all be true you say: but what have you to say to this, that the *Mare Del Zur* hath flux and reflux, and yet your West-Indian-Seas have little or none, as you confesse? how then can the Moone be the cause of the universall Seas ebbing and flowing, seeing they two under one Moone both, are nevertheless so different in Nature, and yet so neere in place?

Why the *Mare Del Zur* hath flux, and not the neighbouring Sea.

Answ. Seeing *Ferdinando Oviedes*, who was both Cosmographer & Hydographer leaveth that question undilucidated, as a thing rather to be admired than solved, leaving to the Reader thereby (in a manner) to adore the great Maker, in the variousnes of his works; I thinke much more may I be excused not to pry too deepely in it.

Quest. What is the cause then, seeing the Moone is alike in power over all waters, that Lakes and Rivers flow not and ebbe not as well as the Sea doth?

Answ. Because these waters are neither large nor deepe enough for her to worke upon, and so they receive but a small portion of her influence.

Quest. What is the reason? why, seeing the Sea is salt, that the Rivers and Fountaines which flow from her (for we all know that the Sea is the Mother of all other waters) as to her they runne all back againe (*exinde fluere*, saith the Poet, *& retro sublapsa referri*) are not salt likewise?

Why Lakes & Rivers ebbe not nor flow not.

Answ. Because the Earth through whose veines

and conduits theſe waters doe paſſe to burſt forth thereafter in ſprings, cleanſeth and mundifieth all ſaltneſſe from them as they paſſe.

Why the Sea waxes never more nor leſſe for all the waters runne to and from it.

It ſeemeth that your former diſcourſe maketh way for anſwer to ſuch as aske, why the Sea doth never debord nor accreace a whit, notwithſtanding that all other waters doe degorge themſelves into her boſome, the reaſon being, becauſe there runneth ever as much out of her to ſubminiſtrate water to ſprings and rivers, as ſhe affordeth them.

Queſt. If the Seas be freſh ſome fathomes below he ſuper fice.

But is it poſſible which is reported that our late Navigators have found by experience, that the Seas water ſo many fathomes below the ſuperficies is freſh ſo that now they may draw up waters to their ſhippes by certaine woodden or rather yron veſſells, which ovally cloſed, doe ſlyde thorough the firſt two or three fathomes of the ſalted ſuperfice downe to the freſh waters, where artificially it opens, and being filled, ſtraight ſhutteth againe, and ſo is drawne up, which they report to have but ſmall difference in taſt from the waters of freſh Rivers, which (if it bee true) is a ſtrange, but a moſt happily diſcovered ſecret.

Anſw. Yea it is poſſible, for probably it may be thought, that the Sunnes raies which before are granted to bee the cauſe of the Seas ſaltneſſe, penetrate no further than the firſt ſuperfice; like as on the contrary the coldneſſe of the Northerne windes freezeth, but the uppermoſt water congealing them into Ice; or the reaſon may better be the perpetuall and conſtant running and diſgolfing of Rivers, brookes and ſprings from the earth into it: And verily I could be

induced

induced to thinke the Mediterranean sea, the Sound of Norwey, and such like which lye low, and are every where encompassed with the higher land except where they breake in from the greater Ocean, that such Seas should be fresh low, in regard of the incessant currents of large Rivers into them, and in respect they doe not furnish water back again to the springs, rivers, and fountaines, seeing they are low beneath the earth; yea it hath troubled many braines to understand what becommeth of these waters which these Seas dayly receave: but it cannot bee receaved for possible, that the waters of the great Ocean are fresh, at least drinkably fresh under the first two or three fathomes, it being by God in natures decree made salt for portablenesse.

The probability, that certaine Seas may be fresh low.

Sect. 7.

That the Mountaines and valleys dispersed over the earth, hindreth not the Compleatnesse of its roundnesse: Of burning mountaines, and Caves within the earth.

BVt leaving the Sea, thus much may be demaunded concerning the earth, why it is said to be round: since there are so inaccessible high mountaines and such long tracts of plaine valleys scattered over it all?

Quest.

Answ. These mountaines and valleys are no more in respect of the earth to hinder its roundnesse, then a little flie is upon a round bowll, or a naile upon a wheele

wheele to evince the rotunditie of it, for the protuberances of such knobs deface not the exact roundnesse of the whole Globe, as not having a comparable proportion with it.

But what signifie these burning mountaines so frightfull to men, which may be seene in severall places of the earth; as that of *Island* called *Hecla*, in *Sicilie* called *Ætna*, besides the burning hills of *Naples* which I have seene, one in *Mexico* in our new found lands of *America* so formidable as is wonderfull: If the earth be cold as you give it forth to be; then how can these mountaines burne so excessively; or if they bee chimneys of hell venting the fire which burneth there in the center of the earth, or not?

Reason for the burning hills which are in divers Countries.

Answ. No question, but as there are waters of divers sorts, some sweet, others salt, and others sulphureous, according to the minerall veynes they run thorough; right so there be some partes of the earth more combustible then others, which once being enflamed and kindled either by the heate of the Sunnes beames, or by some other accident, and then fomented by a little water (which rather redoubleth the heate then extinguisheth it; as we see by experience in our farriers or smiths forges, where to make their coales or charco ales burne the bolder, they bedew or besprinkle them with water) they hold stil burning, the sulphureous ground ever subministrating fewell to the inflammation. But they and the like do not hinder the earths being cold, no more, than one or two Swallowes make not the spring of the yeare.

But yet, if so be the earth be so solid and massie as you say it is, and that it admitteth no vacuitie; How

and

and whence proceede theſe terrible earth-quakes, tremblings, palpitations, to the overwhelming of Cities, ſhaking of Towers and ſteeples, *&c.*

Anſw. No queſtion but as theſe are commonly prodigies and fore-runners of Gods wrath to bee inflicted upon the Land where they happen, as may be ſeene in the ſecond booke of the *Kings chap.* 22. *Commota eſt, & contremuit terra, & quoniam iratus eſt Dominus*; So ſome way lacke not their owne naturall cauſes: and they be chiefly comprehended in one for all, and this is it, that the earth is not unfitly compared unto a living mans body, the rocks and ſtones whereof are his bones, the brookes and rivers ſerpenting thorough it, the veynes and ſinewes conveying moiſtneſſe from their fountaines unto all the members; the hollow of our bowells and of the trunke of our bodies, to the vaſt and ſpacious cavernes and caves within the body of this earth (and yet theſe not hindering the maſſineſſe of the earth, for where earth is, it is maſſie indeed) within the which hollow of our bodyes our vitious windes are encloſed, which if they have no vent, preſently they beget in us *Iliak* paſſions, collicks, *&c.* whereby our whole body is caſt into a diſtemper and diſturbed; even as the windes encloſed in theſe cavernes, and hollow ſubterranean places, preaſſing to have vent, and not finding any, making way to themſelves, do then beget theſe earth-quakes. And of this opinion is *Ariſtotle lib.* 2. *Meteor. cap.* 7.

The true cauſe of earth-quakes.

The compariſon of the earth and mans a body.

Section

Sect. 8.

Of time, whether it bee the Producer or Consumer of things : of the wisedome, and Sagacity of some Horses, and Dogges : How the Adamant is Mollified of the needle in the Sea compas : and the reason of its turning alwayes to the North.

SEeing there is nothing more properly ours, than time, and seeing it is the eldest daughter of nature ; How is this, that you Philosophers bereave us of our best inheritance saying that there no time at all : in respect (say you) the time past, is gone, the future and time to come is not yet, and the time present is ever glyding and running away, yea and your *Aristotle* calleth it but a number of motions : seeing then it consisteth but of parts not having a permanent being, it cannot be said to be at all, say you.

Reasons why there is no time.

Answ. Our true Philosophers reason not so, it is but our Sophists who by their insnaring captions doe cavil thus, therfore take heed of the subdolousnesse of their proposition, which is not universally true : for admit that maxime might hold, concerning the standing and not standing of a thing in its parts, in subjects materiall essentiall and permanent, yet it must not evert things of a fluid and successanean nature, such as time is : and whereas they say that the parts of time are not, they mistake ; in so farre as time is to be measured by now, which the Greekes doe terme τὸ νῦν, which ever exists, and by which indeed time is said properly to have existence.

The Reasons confuted.

Quest

Queſt. What things hold you to be in Time? or whether is Time the conſumer, or the producer of things?

Anſw. To the firſt, with *Ariſtotle*, I underſtand onely ſuch things to be in Time as are ſubiect to mutations, changes, riſings, and fallings, ſuch as are all naturall things below the Sphere of the Moone; by which meanes, things ſempiternall wanting both beginning and ending, whoſe diuturnity cannot be meaſured by time, cannot fall under it.

What things are ſaid to be in Time.

2. *Anſ.* To the ſecond, whether Time be the producer or conſumer of things; I anſwer, that as in the contravertible points of Philoſophy our learned diſagree amongſt themſelves; ſo herein they agree not aright; indeed *Ariſtotle* (whom cuſtomably we all follow) in his 8. *Cap. lib.* 4. *Phyſicōn*, will have Time rather to be the cauſe of the ruine and decay of all things, and that by vertue of its motion, by which ſublunary bodies are altered and corrupted, rather than of their riſing, increaſe, or growing. And with him many of our Poets,

Tempus edax rerum, tuque inuidioſa vetuſtas
Omnia conteritis,—— and againe,
Omnia fert ætas, animum quoq́, &c.
Tempora labuntur, tacitiſq́ ſeneſcimus annis,
Et fugiunt (fræno non remorante) dies.

Ariſtotles opinion, that Time is the ruine of things how to be expounded.

To which opinion of *Ariſtotle Cardan* adhereth, calling Time the Author of life and death: but as *Iulius Scaliger* hath refuted divers of his opinions in his exercitation, 352. not without reaſon hath he confuted this alſo, making Time to bee an accidentall cauſe of the decay of things; for beſide Time there

muſt

must be *causa agens* which is the Law of Nature ingrafted in all things living, moving, creeping, vegetating, by which they tend to ruine: as sinne in Man (besides his naturall corruption) is, and must bee thought the Author of his death.

Quest. Now seeing your Philosophy admitteth no other difference betwixt Men and Beasts, but the use of reason, wherewith we are endued above them; how wil you tearme those many reasonable things performed by Beasts, wherof our Histories are full: as that of *Bucephalus* of *Alexander* the Great, who would suffer none to back him but his Master, though never so artificially disguised in his apparell; *Iulius Cæsar* his Horse likewise, who at his death was observed to fast so long, is remarkeable: and that of *Nicomedes*, who because his Lord was killed in the field, choosed rather to dye starving for hunger, than to survive him: Stories of the sagacity of Dogs, bookes are fully replenished w^th^; the example of one only shall suffice;

Of the wittinesse of Dogs and Horses.

Of the love of a Dog to his Master.

"This Dog being with his Master, when a Robber "killed him for his purse, and had flung him into a "River that he might not be found againe, did first "leape into the River after his dead Master, and then "upon his shoulders bore up his head so long, as any "breath was remaining within him, thereafter discer-"ning him to be dead, straight followes the rogue by "his sent to the Citie, finds him, and incessantly bark-"eth at him whithersoever he went; while at length, "his Master being missed, and the Rogue under sus-"picion of robbery, and the Dogs violent pursuing "the fellow drew the people into a jealousie of the "murther: whereupon the robber being called be-

"fore

"fore a Iudge, after due examination confeſſed the "murther, was condemned, & died for the fact. Now I demand, if theſe and the like doings of Beaſts be not founded upon reaſon whereof we men brag as of a greater prerogative above them?

Diſcourſe of a Dogs memory.

Anſw. No wayes; for we muſt diſtinguiſh betwixt actions of true reaſon, ſuch as ours are; and theſe which are done by a naturall inſtinct or ſenſitive faculty of ſagacity, uſe and cuſtome, but moſt eſpecially, from that which is a neere tying bond even amongſt the cruelleſt of Beaſts, a perpetuall reſenting of a good turne received; as is manifeſt in the example of the Lion, who not onely ſaved the life of that poore condemned caitive, who fled into his denne and cave, becauſe he pulled out of his pawe the thorne which moleſted him, but likewiſe fed him, by killing beaſts of all ſorts and bringing them unto him; whereof *Gellius* at length; and out of him *Du Bartas*.

Diſtinction between things done by reaſon and a naturall inclination.

If I ſhould follow forth here all other queſtions of Natures ſecrets, the taske were long and tedious, and peradventure, leſſe pleaſant to the Reader, than painfull to me: as why, the Adamant-ſtone which (of its owne nature) is ſo hard, that neither fire nor Iron can bruiſe or break it, is nevertheleſſe broke in peeces in a diſhfull of hot Goates-bloud, ſoft bloud being more powerfull than hard Iron? Whether fiſhes doe breath or not, ſeeing they have no lungs the bellowes of breath? What can be the cauſe of the Loadſtones attractive power to draw Iron unto it? Why, ſome Plants and Herbes ripen ſooner than others? Or what makes a member of a Man or Beaſt being cut from

from the body, to dye presently; and yet branches of trees cut off will retaine their lively sap so long within them? Whether or not there be such affinity, and to say love amongst plants and herbes, that some will more fruitfully increase, being set, planted, or sowen, together, then when mixed amongst others, according to that of the Poet,

That certaine plants & herbs will grow kindlier together than others.

Vivunt in Venerem frondes, omnisq; vicissim
Felix arbor amat, nutant ad mutua palmæ
Fœdera, populeo suspirat populus ictu, &c.

To which questions, & some others hereafter to be handled, for me to give answer, were no lesse presumption and foole-hardinesse, than a demonstration of my grosser ignorance; since, *Cardan* and *Scaliger* are so farre from agreement in these matters, as may be seen in *Scaligers* Exercitations; yet having propounded these questions, and to say nothing of my owne opinion touching the solution of such Riddles (as wee call them) were someway an imputation; and I might be equally blamed with those who leade their neighbour upon the Ice, and leave him there; wherefore thus I adventure.

And first, why the Adamant which for hardnesse is able to abide both the force of the fire, and dint of any hammer, yet being put in Goates-bloud, parteth asunder.

Answ. Howbeit *Scaliger* in his 345. Exercitation *Sect.* 8. giveth no other reason than that absolutely, it is one of the greatest miracles and secrets of Nature; and therein refuteth their opinions, who alleage the Analogie and agreement of the common principles of Nature; which are common to the bloud and to the

the Adamant together, to be the cauſe; yet I thinke for my owne part, that if any naturall reaſon may be given in ſo hidden a myſtery, it may be this; That Goates (as we all know) live and feed uſually on cliffie Rocks wheron herbs of rare pearcing and penetrative vertues and qualities grow; (neither is the derivation of that herbes name Saxifrage other, than from the power it hath to breake ſtones aſunder) Goates then, feeding on ſuch rockie-herbes as theſe, no wonder that their bloud having Analogie and proportion to their food, be penetrative, and more proper to bee powerfull in vertue, than otherwayes convertible in fatneſſe, for wee ſee them of all grazing Beaſts the leaneſt.

The true cauſe how the hard Adamant is diſſolved in a diſh of Goats bloud.

Queſt. Now by what power draweth the Loadſtone Iron unto it?

Anſw. Ariſtotle in the 7th. Booke of his Phyſicks which almoſt al other Philoſophers do affirme, That the Loadſtone attracteth Iron unto it by their ſimilitude and likeneſſe of ſubſtances; for ſo you ſee they are both of a like colour: and that muſt be the cauſe how the falſe-Prophet *Mahomet*, his Cheſt of Iron, wherein his bones are, doth hang miraculouſly unſupported of any thing, becauſe either the pend or ſome verticall ſtone of the Vault where it is kept, is of Loadſtone: and thus with *Iulius Scaliger, Exercitatione*, 151. I diſallow *Caſpar Bartholinus* his opinion, who alleageth that the Loadſtone doth not meerely and ſolely by its attractive faculty draw Iron unto it, but for that it is nouriſhed and fed by Iron; for nothing more properly can bee ſaid to feed, than that which hath life. Therefore, &c.

What maketh the Loadſtone draw Iron.

What maketh the Needle in a Sea compaſſe turne ever to the North.

Here alſo it will not be amiſſe to adde the reaſon why the Needles of Sea-compaſſes (as theſe of other Sun-Dyals) being touched by the Loadſtone, doe alwayes turne to the North; and this is the moſt received; That there is under our North-Pole a huge black Rock under which our Ocean ſurgeth and iſſueth forth in foure Currants, anſwerable to the foure corners of the Earth, or the foure winds, which place (if the Seas have a ſource) muſt bee thought to be its ſpring; and this Rock is thought to be all of Loadſtone; ſo that by a kinde of affinity (it would ſeeme) by a particular inſtinct of nature, it draweth all other ſuch like ſtones or other metals touched by them towards it. So that the reaſon of the Needles turning to the North in Compaſſes is that *Nigra rupes* of Loadſtone lying under our North Pole: which by the attractive power it hath, draweth all things touched by it, or its alike thither.

Section 9.

Of Fiſhes, if they may be ſaid to breath, ſeeing they lack pulmons: Of flying fiſhes, if ſuch things may be, &c. which are the reaſons of their poſſibility, are deduced, exemplified.

Queſt. BVT whether and after what manner can Fiſhes be ſaid to breath, ſeeing they have no lungs, the bellowes of breath?

Anſw. This queſtion hath beene agitated many Ages agoe, both *pro & contra*, as we ſay; *Ariſt. cap.* 1. *De*

De respiratione, denying that they can breath: *Plato* and divers others of his Sect affirming the contrary: they who maintaine the negative part do reason thus; Creatures that want the Organs and Instruments of breathing, cannot be said to breath or respire; but such are all fishes, therefore, &c.

Reasons *pro* and *contra* that fishes breath.

The opposites on the other side doe thus maintaine their breathing; all living creatures not onely breath, but so necessarily must breath that for lack of it they dye, as experience sheweth: nay, that the very insects, or (as you would say) demi-creatures, they must breathe: but fishes are living Creatures, therefore they must breathe. The Aristotelians answering this, distinguish the major proposition, restraining the universality of it but to such Creatures as live in the Aire, whereas there is no Ayre in the water, the nature of it not admitting place for Ayre as the Earth doth, which being opened with any Instrument, as with a Plough or Spade, may admit Ayre; whereas the waters will fill all the void presently againe, as we may see by buckets, boxes, or any other materiall thing, being put into the water, and taken out againe, doe leave no *vacuum* behinde them; for the waters doe straight wayes reincorporate: seeing then there is no Ayre in the Fishes Element, they cannot nor need not be said to breath; for contrariwise wee see that being drawne from the waters to the Ayre they doe incontinently dye.

What way fishes may be said to breath.

For answer to both extreames, I could allow for fishes a kind of respiration called refrigeration, which improperly may be said to be respiration; but since nothing properly can be said to breath but that which

hath lungs, (the inſtruments of breathing) which indeed fiſhes have not: The concluſion is cleare; That they have rather a ſort of refrigeration, then reſpiration.

If herring can flie.

Queſt. But is it of truth which wee heare of our Navigators, that in the Southerne ſeas they have ſeene flying fiſhes, and herring like a foggie or moiſt cloud fleeing above their heads, and falling againe in the Seas with a ruſhing and fluſhing?

Anſw. Yea I thinke it poſſible; for the great Creator, as he hath created the foules of the Aire, the beaſts of the earth, and the fiſhes of the Sea, at the firſt creation, in their owne true kindes; So hath hee made of all theſe kindes *Amphibia*. And as there are foure footed beaſts and fowles of double kinds, living promiſcuouſly on land and water, why may there not be fiſhes of that nature alſo? of which hereafter. So hath hee indued the Aire (as the more noble element of the three) with that prerogative; that in it, either fowles or watery creatures might be engendred; out of vapors either moiſt or terreſtriall, or extracted from ſtanding lakes, ſtanckes, mariſhes, myres, or the like oyly and marſhie places; which waters, elevated to the Aire, by the violent operation of the Sunnes beames, either from the Seas, or the fore-ſaid places, by the benefit of the warme Aire, where they abide, as in the fertile belly of a fruitfull mother, doe there receave the figure either of frogge or fiſh, according to the predominancy of the matter whereof that vapor is compoſed; from whence again as all heavie things doe tend downeward, ſo doe they alſo. Which hath made ſome ſuppoſe that herrings,

How herring may be engendred in the Aire.

(by

(by them called flying fiſhes) doe deſcend from the aire, their place of generation: where indeed more truly, the error commeth this way; the Herrings, in their ſeaſon, doe come in great ſhoales (as Sea men ſay) upon the ſuperfice of the waters, where ſcudding along the coaſts, ſome ſudden gale of wind (they being elevated upon the top of ſome vaſte wave) may chance to blow them violently ſo farre, till they encounter, and light on a higher billow, which hath made Marriners thinke they flie.

A ſea-faying reaſon why herring may flie.

Queſt. What have you to ſay to this, that as there are fiſhes extraordinary, ſo I have heard of fowles without either feete or plumes?

Anſw. Fowles they cannot be, becauſe fowles are defined to be living creatures feathered and two footed; and ſince theſe are not ſuch, fowles they cannot be: And yet *Iulius Scaliger exercitatione* 228. *ſect.* 1. *&* 24. maketh mention of them, calling them Apodes, which Greeke word is as much as without feete.]

Apodes, or fowles without feet or Plumes.

Queſt. But, leaving the various diverſities of fowles, as the Geeſe who hatch their egges under their paw, or foote, and the like, how doe thoſe claick geeſe in Scotland breed, whereof *Du Bartas* maketh mention as of a rare work of nature?

Of Claick Geeſe.

Anſw. Their generation is beyond the ordinary courſe of nature, in ſo much that ordinarily one creature begetteth another; but ſo it is, that this fowle is engendred of certaine leaves of trees, out of which in a manner it buddeth, and ripeneth; Now, theſe trees

growing upon the bankes of lakes, doe, at their due time, caſt theſe leaves, which falling into the lake, doe there ſo putrifie, that of them is engendred a Worme, which by ſome ſecret fomentation & agitation of the waters, with the Suns helpe, groweth by little and little to be a fowle ſomewhat bigger than a Mallard, or wild Duck; and in thoſe waters they live and feed, and are eaten by the inhabitants thereabouts.

Firſt then, I reſolve their queſtions who argument againſt the poſſibility of this generation, and then I ſhall cleare you of that doubt you have propoſed: thus it ſtandeth then with theſe Argumentators; when *Ariſtotle* in his laſt chapter of his third booke *De generatione animalium*, before he had diſſenſſed the materiall cauſes of all kind of perfect creatures, In the end falleth upon the materiall cauſe of inſects, and ſo of the leſſe perfect; one kinde of them he maketh to be produced of a Mariſh clay an earthie and putrified ſlimie ſubſtance, whereof wormes, froggs, ſnailes and the like are produced; the Sun beames, as the efficient cauſe, working upon that matter; The other ſort is more perfect, and theſe are our Bees, waſpes, flyes, midges and ſo forth, which are engendred of ſome putrified ſubſtance, as, peradventure, of a dead horſe, oxe, or aſſe; out of which by the operation of the environing aire, and the internal putrefaction together they are brought forth: The inſects of the Sea are ſaid to have the like generations, whereof *Ariſtotle De hiſtoria Animalium, lib.* 1. *cap.* 1. *Et in libro de reſpiratione*; and lately the learned *Scaliger Exercitatione* 191 *ſect.*2. Notwithſtanding the venerable teſtimony and authority of ſuch famous Authors; yet our beleevers

Diverſe kindes of Inſects.

Sea Inſects.

beleevers of miracles doe reaſon thus both againſt the generation of the Claik Geeſe; and of the Inſects alſo.

Every thing begotten muſt be engendred of a like unto it ſelfe, as men, horſe, Sheepe, Neat, *&c.* engender their life; and this by the warrant and authoritie of *Ariſtotle* elſe where, but particularly *cap.* 7. *Meteor.* Text 2.

Reaſons why Inſects are not propagated by a Celeſtiall heat.

Queſt. But ſo it is that the body of the heavens, the Sun and his heate, are no wayes *ſimilia* or alike unto theſe Inſects produced and procreated from the flymie and putrified matters above rehearſed.

And therefore that cannot be the way of their generation. Thus they.

Anſw. To this anſwer muſt be made Philoſophically, in diſtinguiſhing the word alike to it ſelfe; for things may be ſaid alike unto other, either of right, or univoce as they ſay in the Schooles: That way indeed our Inſects are not a like to the putrified earth or beaſt they came of, but Analogice they may be ſaid to be alike, that is, in ſome reſpect, in ſo farre as they communicate in this, that they are produced of the earth, and by the warmeneſſe of the Sun, which are things actually exiſting.

Queſt. Now to cleere the queſtion concerning fowles wanting feete and feathers; whether may ſuch things be, or not?

Anſ. Yea, for as the great Creator hath ordained in nature betwixt himſelfe and us men here, Angels, yea good and bad ſpirits; betwixt ſenſitive and inſenſitive Creatures, mid creatures which wee call Zoophyta, and Plantanimalia, as the Fiſhes *Holuthuna, ſtella ma-*

rina, Pulmo marinus, &c. Even ſo betwixt fowles and fiſhes, nature produced middle or meane creatures, by the Greekes called ἀμφίβια, or beaſts of two lives; partly living by waters, partly by earth; And of this ſort theſe fowles muſt be, as betwixt land beaſts and fiſhes, are frogs, and Crocodills; and ſome others the like.

What middle Creatures are.

Sect. 10.

Of fiſhes, and their generation: How fowles are generated in the waters. If gold can be made potable; and of the matter of precious ſtones.

Queſtion. BVt you have not as yet ſufficiently enough ſatisfied my minde of that ſcruple, wherewith it was perplexed: for I was ſaying that if things on the earth were propagated by their likes, as by the authority of *Ariſtotle* I did inſtance, and almoſt unto that the Lyrick Poet Horace applaudeth while he ſaith, although not to this purpoſe wholly, *fortes creantur fortibus*, and againe, *Nec imbellem feroces progenerant aquilæ columbam*; then how can fiſhes be ſaid to live, and have their ſubſtance of, and by the Sea? For if the Maxime both of Philoſophie and medicine hold good, that we exiſt and have our being of thoſe things wherof we are nouriſhed; ſurely fiſhes exiſting of a more groſſe and more materiall ſubſtance than water is, cannot be ſaid to live by the Sea; much leſſe Fowles, ſeeing their fleſh is more terreſtriall, and for that cauſe they build and bring forth their young ones upon the Land; whereas otherwayes it ſhould

How fiſhes can be ſaid to live by the Sea ſeeing their fleſh is more firme then the water whereof they are generated.

ſhould ſeeme that they live and have their eſſence, and exiſtence from the Sea: for in *Geneſis* we reade, that the Great Creator commanded the waters to produce ſwimming, creeping, and flying creatures upon the Earth?

Anſw. With *Ariſtotle* whom you object to mee, you muſt conſider, that in the fire and ayre no Creature is framed: For ſo in the 4th. Booke of his Meteors he holdeth: from them two indeed he admitteth vertue and power to bee derived to thoſe which are created upon the Earth, and in the Waters; true it is, that Fowles being volatile Creatures, their generation ſhould have fallen by lot in the Ayre; but in reſpect that none can be well procreated there, the next Element became their bringer forth; as neereſt in nature to the Ayre, and as being little leſſe than a condenſed Ayre, from which theſe Foules might ſoone flye up: ſo that all things here below being made up of a dry, and then of a thickned moiſt matter, which are the Earth and Waters; no marvell, that properly of them all things are procreated: howbeit they may be ſaid to have their temperament and vertues from the ſuperior two, fire and ayre: and where it may be objected how the matter of Fiſhes ſhould be ſo firme and ſolid, they being nouriſhed by the thin, wateriſh, and ſlimy ſubſtance of the waters; it muſt be conſidered that the Seas and waters are not ſo exempted of ſome mixture of earth in them, but that even as the Earth ſome way participateth of them, ſo they impart partly to it their moiſtneſſe againe; of which mixture both Fowles and Fiſhes doe live.

How fowles are brought forth in waters

The cauſe of the firme fleſh of fiſhes.

Queſt.

Queſt. What is your opinion concerning the potableneſſe of Gold, after which, our Chymiſts, and Extractors of quinteſſences, Calcinators, and Pulverizers of Metals make ſuch ſearch and labour; whereby Gold made drinkable (as they undertake) our youth neere ſpent may be renewed againe, all diſeaſes cured, and the drinker thereof to live for many Ages?

That Gold cannot bee made potable.

Anſw. Although Gold of all Metals be the King, as the Sun amongſt the Planets, and that it is the ſofteſt of all, and moſt volatile, ſo the eaſieſt to bee extended and wrought upon; in ſo much, that one Ounce of it is able to cover many Ounces, and Pounds of Silver: yea, although of all Metals it abideth the triall of the fire beſt, and loſeth nothing by it, as *Ariſt.* in the 3. Booke of his Meteors, *cap.6.* obſerveth; yet that it may be made potable I doubt much of it, and am a Galeniſt in that point, and that for theſe two notable reaſons which *Iulius Scaliger* ſetteth downe in his 272. Exercitation.

Firſt, becauſe there muſt bee ſome reſemblance betwixt the body nouriſhed and the thing that nouriſheth; which no more holdeth betwixt our bodies and gold, than betwixt a living and a dead thing.

Secondly, becauſe nothing is able to nouriſh us, which the heate of our ſtomack is not able to digeſt: But ſuch is Gold, and therefore, &c. Alwayes of the worth and vertue of Gold, reade *Plinius*, *lib.*1. *&.*3. *cap.* 1.

The matter of precious ſtones

Queſt. Now what is the matter of precious-Stones; earth it cannot be; for it is heavie, dull, and blackiſh coloured; they are glitteringly tranſparent like Stars: water it is not, for even Cryſtalline Ice will diſſolve,

whereas

whereas they for hardneſſe are almoſt indiſſoluble: yet *Cleopatra* is ſaid to have liquefied a Pearle to *Anthonie*.

Anſw. They are of moſt purified earth, not without ſome mixture of moiſtneſſe, but ſuch as are both mavellouſly by the force of the Sun ſubtilized, tempered, and concocted.

Section 11.

Of the Earth, its circumference, thickneſſe, and diſtance from the Sunne.

Queſt. OVR Coſmographers generally, but more particularly our Geographers have beene very bold to take upon them the hability (as I am informed) to ſhew how many graines of Wheate or Barley will encompaſſe the whole Earth, which I eſteeme a thing impoſſible to any mortall man to doe, and therefore frivolous to be undertaken: and I think it very much, if they can demonſttate how many Miles it is in compaſſe, leaving to trouble their wits with the other: yet hereupon I deſire to be reſolved.

Anſw. The Philoſophicall generall knowledge of things, is twofold, either knowing things which fall under the reach of their Science in their effects, thereby to come to the knowledg of the cauſe; or contrariwiſe, by the cauſe firſt to know the effects to come. But the Mathematicall demonſtrations, whereof Geometry is a part, conſiſt not in theſe ſpeculations, but in reall demonſtrations; and that in ſuch ſort, that their

Two Philoſophicall wayes to know things.

their positions being once well founded, thereon they may build what they please; whereas on the other side, a little error or mistaking in the beginning, becommeth great and irreparable in the end: and so to make way to your answer; there is no question, but if once a Geometrian give up the infallible number of the Miles which the Earth will reach to in compasse, but soone and on a sudden hee may shew how many graines will encompasse it; for it is universally held that the Earth is in circuit one and twenty thousands and so many odde hundred Miles; a Mile consisteth of a thousand paces, a pace of five feet, a foot of foure palmes, a palme of foure fingers breadth, a fingers beadth of foure Barley cornes; and so from the first to the last, the number of the Miles holding sure, the supputation of the graines number will cleere it selfe by Multiplication.

Quest. By that meanes I see you seeme to make no difficulty of that whereof I so much doubted?

Answ. No indeed; and in this point I perceive how farre learned men are to be respected above ignorants; yea as much as Pearles, Diamonds, or precious Stones are to be preferred to grosse Minerals.

Quest. Seeing all depende upon the knowledge of the Earths compasse, then how many Miles hold you it to be in roundnesse?

What letteth that We cannot aright give up the supputation of the Earths circumference.

Answ. The discovery of our new found-lands, and the confident assurance which our moderne Navigators and Mappers have of this *Terra australis incognita*, maketh that punctually not to be pointed out: but what may satisfie in that, or in knowing how thick the masse of the Earth is, in how many dayes a man might

might compaſſe it about, if by land it were all travellable: or conjecturally to ſhaddow how great is the diſtance betwixt the Earth and the Firmament, I referre you to the Title of Curioſity following; for as I finde a diſcrepance amongſt our moſt learned Writers, in divers moſt important heads of their profeſſion; So in this point alſo I finde them variable and diſaſſenting; for *Elias Vineti* commenting on *Sacrobosk* upon that Text, giveth forth the Earths compaſſe to extend to above two hundred and fifty thouſand *ſtadia*, whereof every eight maketh up our Mile; which ſhall farre exceed the moſt received opinion of our experteſt Mathematicians; who by their moderne Computations make the reckoning of its circumference but to amount to one and twenty thouſand miles and ſix hundred; & that anſwerably to the three hundred and ſixty degrees wherewith they have divided the great heavenly Circle, and proportionably thereunto the Earth.

Diverſity of opinions concerning the worlds Compaſſe.

Yet pondering aright the diſcrepance and oddes which doth ariſe betwixt our learned Authors, concerning the compaſſe of the Earths Globe, wee ſhall perceive it to proceed from the great diverſity of Miles in divers Nations, every man underſtanding them to be the Miles of that Nation wherein hee liveth: but ſpeaking to our Natives of *Britanne*, it is found by daily experience of Mathematicians, that if a man goe 60. of our Britiſh Miles further to the North, then (I ſay) viſibly he ſhall perceive the Pole to riſe a degree higher, and the Equinoctiall to fall a degree lower; whereby it is manifeſt, that to one degree of the great Circle of heaven (ſuch as is the Meridian)

Meridian) there answereth on earth 60. of our myles; Now there being in every such great circle 360. degrees or equall parts, multiplying 360. by 60; wee finde that they produce 21600. myles British: for a line imagined to passe by the South and North Poles, and so encompasse the earth, would easily appeare to amount to the same computation.

The earths circumference or compasse.

As for the diametricall thicknesse of the earth; the proportions of a circles circumference to its diameter (or lyne crossing from one side to the other thorough the centre) being somewhat more than the triple, such as is the proportion of 22 to 7. called by Arithmeticians triple Sesquiseptima, triple with a seaventh part more; and seeing the circumference of the great circle of the earth is a little lesse than 22000 myles; it followeth, that the thicknesse or diameter of it from face to face, is a little more than 7000. And consequently the halfe diameter, *viz.* from the circumference to the centre neer about 3600 miles. Now then suppose a man to travell under the equinoctiall or middle lyne of the earth betwixt the two poles, making every day 15. of our British myles; It is manifest that such a Traveller should compasse the whole circumference of the earth in three yeares 345 dayes, some 20. dayes lesse than 4 yeares: As for the distance of the earth from the firmament, I dare not give you it for current: yet in the Schooles thus they shadow it, that the aires diametrical thicknesse is ten times above that of the waters; the waters diameter ten times above that of the earth: By the Aire I understand here all that vast interstice betwixt us and the Moone; which if it be true, counteth it selfe: but

The thicknesse of the earth.

Distance of the earth from heaven.

because

becauſe the diſtance betwixt the centre of the earth and the centre of the Sun is moreparticularly ſpecified by our Aſtronomers; therefore to give you further content, thus much of it you ſhall underſtand; that if you will remarke diligently, and compare together the obſervations of *Ptolomeus*, *Albategnius*, and *Allacen*, you ſhall finde, that the aforeſaid diſtance betwixt the centre of the earth and that of the Sun containeth the earths *Semidiameter* 1110. times: Now as I have ſaid before, the earths Semidiameter being ſomewhat leſſe then 3500. we ſhall take it in a number, to wit 3400. Which if you multiply by the aforeſaid 1110. the product will ſhew you the whole diſtance betwixt the centre of the earth and the centre of the Sun to be 3774000. Three millions, ſeaven hundred ſeaventie foure thouſand myles: likewiſe if from this number you ſubſtract 3400. myles for the earths Semidiameter from the centre to the ſuperfice, and 18700 myles, which is the Suns halfe diameter according to the doctrine of the afore-named Aſtronomers, there remaineth 3751900. myles, as the diſtance betwixt the uppermoſt ſuperfice of the earth which we tread upon, and the neereſt ſuperfice of the Sunne, which being the chiefe and middle of the planets may conjecturally ſhaddow forth the diſtance of the earth from the heavens.

The moſt approved opinion of the earths diſtance from the Sun.

METEORS.

OF

VARIETIES

THE

SECOND BOOKE:

CONTEINING A DIS-
COVRSE OF METEORS,
As of *Comets*, falling Starrs, and
other fiery impreſsions, *&c.*

Of *Winde*, *Clouds*, *Thunder*, *Haile*, *Snow*;
Raine, *Deaw*, *Earth-quakes*, with their true Na-
turall Cauſes and effects, *&c.*

Of *Rivers*, and *Fountaines*, their Springs, and
Sources, *&c.*

BY
DAVID PERSON of *Loughlands* in *SCOTLAND*
GENTLEMAN.

Et quæ non proſunt ſingula, multa juvant.

LONDON,
Printed by RICHARD *Badger*, for *Thomas Alchorn*,
and are to be ſold at his ſhop, in *Pauls Church-yard*
at the ſigne of the Greene-*Dragon*. 1635.

In

PERSONI

Polyanthea.

David Lindsay

SVbtiles, varias, jucundas res, ſimul uno
Congeſtas Libro, perlege lector, habes.
Hîc Cœlum, hîc ſuperos Manes, ac Tartara cernes,
Totus & ingentes quas capit Orbis opes.
Eximium miraris opus, longè tamen infra
Authoris vaſtum ſubſidet ingenium.

Da. Epiſc. Edinburgenſis.

Ad LECTOREM.

SI variis gaudes, miranda, recondita quæris;
Si peregrina cupis, ſplendida, rara, bona;
Si leges, artes, & quæ Cœleſtia ſpectant;
Si manes, mores, Phyſica, mentis opes;
Hoc opus eximium, ex cunctis præſtantia pandet:
Perlege, vix aliud talia, tanta dabit.
Livor ſumma petens carpat; ſed carpitur ipſe
Irradiante libri lumine, ne invideat.

Io. Epiſco. *Cathaneſius.*

Arthur Johnston. Aberdonensi ætatis 62 an Physician to the King

In præclara Davidis Personi
gymnasmata.

FInibus hic arctis ingens constringitur orbis,
Et stupet humanæ Iuppiter artis opus.
Hunc olim fragili concluſit Græcia vitro,
Nunc brevis immenso cum Iove charta capit.
Vitreus interijt, durabit charteus orbis,
Ingenij donec cultor & artis erit.

A. Ionstonus, *Medicus Regius.*

In *Davidis Personi* Lochlandij opera πολυποίκιλα seu
de multifaria rerum varietate.

QVàm variæ rerum facies, quàm gramine campi
Depicti vario, varij quàm floribus horti,
Quàm varium stellis Cœlum, quàm piscibus æquor,
Et picturatis volucrum sunt agmina pennis:
Tam varia & libri sunt argumenta perennis,
Quæ Persone tibi famam peperêre perennem.

Io. Adamsonus *Academiæ* Edinburgensis
Rector Primarius.

Of Persons Varieties.

THe Lawyer here may learne Divinity,
The Divine, Lawes, or faire Astrology;
The Dammaret respectively to fight,
The Duellist to court a Mistresse right;

Such

Such who their name take from the Roſie-Croſſe
May here by Time, learne to repaire their loſſe:
All learne may ſomewhat, if they be not fooles
Arts quicklier here are leſſon'd, than in Schooles.

Diſtich, of the ſame.

This Booke a World is; here if errours be,
The like (nay worſe) in the great world we ſee.

William Drummond,
Of *Hathorn-den*.

In DAVIDIS PERSONI Lochlandij
πολυισορίαν.
Ad Iuventutem Nobilem
παραινετικὸν.

QVos plebi exemit ſplendor virtutis avitæ,
Et ditant veteri prædia ſtructa manu;
Dianæ queis cura ſequi, queis Caſtra diones;
Quaſque voluptates luſus inanis habet,
Diſcite, Perſonus, quantum majora ſecutus,
Prima dedit Caſtris tempora Phœbe tuis.
Æmulus æthereos imitari deinde labores,
Deſeruit charum patria quicquid habet.
Quique Iſim, Rhodanumq; citum, Rhenumq; Padumque,
Qui Lirim, & Tiberim, Dordoniumque bibunt,
Tam varios hominum mores ſcrutatus & urbes,
Sedulo Palladias accumulavit opes:
Has quoque nunc ultrò promit, queis pectora vobis
Sit fas eximijs excoluiſſe bonis:
Quæque ſibi multo conſtabant ante labore,
Dat vobis tenui mole paranda libri.

Nubila quicquid habent, quicquid versatilis æther
Eximium, aut vasto terra, vel unda sinu,
Dædala naturæ secreta, Artisque stupenda
Quas sophia, aut partes clara matheſis habet,
Accipite, & grata pensetis mente labores,
Discite & hinc studium Nobile velle sequi.

Tho. Crafordius.

Generoso & omnigenâ cum ingenij tum morum Nobilitate illustri Davidi Persono *à Lochlands.*

ASTræus poterat vates post somnia lauri
Gustatæ, lauri demeruisse decus.
Mæonios postquam manes pater Ennius hausit,
Romani eloquij cœperat esse pater.
Pro monstro exemplum est; quando dij cuncta labore
Vendunt, & duris gratia rebus inest;
Tu varios hominum mores, urbesque secutus,
E vario florum germine mella refers.
Prisca que componens his tempora, cuncta perennas,
Cascaque temporibus das rediviva novis.
Ast ne aliis tanti constent, compendia præstas;
Et macrocosmum terra *Britanna* legit.

Ro. Fairlæus.

In DAVIDIS PERSONI Lochlandij,
πολυμαθήματα.

NVnc tibi, nunc quantum debebit doctior orbis,
Cui tuus unus erit Bibliotheca liber?

Gualt. Ballendinus.

Contents

To

THE MOST REVEREND FATHER IN GOD PATRICK, Lindsay

By the providence of God Archbishop of *Glasgow*, Primate of Scotland, and one of his Majesties most Honourable Privy Councell, and Exchequer in that Kingdome, *&c.*

(**)

My LORD.

TO whom can those two Pillars IACHIN *and* BOAS *erected before Salomons Temple, bee more properly applyed then to your Grace, who both in Church and commonwealth have shewne your selfe to bee the lively Hieroglyphick figured by them, as your Memorable deeds in both can beare record to Posterity? for with what vigor did your piety and zeale extend it selfe in suppres-*

sing

ſing vice and ſuperſtition in the Churches conecredited to your care, and in eſtabliſhing vertue and learning both there and elſewhere, may appeare in the peoples harmonious Concord in Religion to Gods glory, your eternall praiſe and their eternall comfort; And as your Piety, ſo have your Iuſtice, and travells beene extraordinary in ſettling of the Church rents univerſally through the land, repoſſeſſing every man of his owne tithes upon moſt competent conſiderations; all which with your great gravity Munificence and other endowments fit for the accompliſhment of ſo venerable a Prelate, have heaped upon you both Gods bleſſings, our Royall Soveraignes favour, and the peoples love, and reverence; But leaſt others ſhould deeme that adulation which the mouth of verity would even extort from your enemies, without further commendations of your Perſon, I humbly recommend this booke to your Graces Patronage, acknowledging the ſtrong tyes I have to continue

---

Your Graces moſt obſequious ſervant,

D. PERSON.

OF METEORS, THE SECOND BOOKE.

CHAPTER I.

The definition of Meteors, their Matter, substance, place, and cause.

I Define Meteors to bee things, above our sight, in the ayre, as the Etymology of the word importeth. I divide them into dry and moist, according to the diversity of the matter whereof they are framed, which are dry and moist vapours and exhalations extracted from the earth and waters; and from thence elevated to the regions of the ayre, where they are fashioned; and that diversely, according either to the

Definition of Meteors: their matter, substance and height of formation.

degree of the Region they are framed in, or the matter whereof they are fashioned.

The Philosophers and meere naturalists have not alike consideration of them; for Philosophers have regard to them both as they have their dependance from above, specifying time, place, and all other their circumstances: whereas the meere naturalists doe particularize none of them, but generally shew how they flow from the earth: the knowledge of stars, and of the regions of the ayre, better fitting the Philosopher then the other.

Meteors severally considered by Philosophers and naturalists.

For so it is, that, the vapors, and exhalations which the Sun extracteth out of the Seas and earth, sending them up to the regions of the ayre, are the true and originall materiall cause of these Meteors.

Not of all uniformely, but severally of each one, according to the height, whereto they are elevated from the said waters and earth; and the nature of the vapour elevated: which I may not unfitly compare to the naturall body of man, whose stomacke is the centre of his fabrick, which sendeth up to the head, the moyst or flatulent humors, wherewith for the time it is affected; and receiveth backe againe either heated and consuming distillations, or refrigerated and quenching humors, wherewith to attemperate and refresh the incessant motion and heat of the other noble parts by a circular motion.

A comparison of these Vapors unto the body of man, chiefly to the ventricle and head.

Quest. I know the curiosity of more subtile spirits will move the question, whether the Sun draweth exhalations from the lowest or first region of the ayre; seeing it is humid and hot, sometime hotter, sometime colder, according as the reverberation of the

Whether there be any exhalations from the lowest Region of the ayre?

Sunnes

Sunnes heat from th e earth affecteth it: although I grant, that the ayre, of its owne nature, is hot; yet that hindereth not, but accidentally, it may be heated alſo, yea ſometimes made hotter then of its nature it is. To this queſtion I anſwer.

Anſw. That the ſubtilty and rarefaction of the ayrs humidity hindereth the Sunne from exhaling of it; for although ſome parts of the moiſt ayre be groſſer than others, yet the ſame groſſer parts are more ſubtile then any vapor, which the Sun extracteth from the earth or waters: for not all ſubtile humidity is evaporable, but that of water only, as that which may more eaſily be apprehended by heat.

As then, the loweſt and firſt region of the ayre about us, wherin we breath here, is hot and moiſt, both by nature and accident; as I was ſaying, by the reverberation of the ſunne-beames, upon ſolid and combuſtible bodyes, and heated by the exhalation of fumes from places or things that are apt to be kindled, even ſo, the uppermoſt region is hot and dry, both by nature, and accident; and almoſt more, or rather by accident then by nature, *propter viciniam ignis*; albeit the ſupreme region muſt be hotter then the lower, both in reſpect of the propinquity of it, to the element of fire, (even as the loweſt region by the neighbour-hood of it to the earth oftentimes is colder than hot) as alſo in reſpect of the neareneſſe of it to the heavens, which as with the light of them, they warme the lower things; So, by the rapidity and velocity of their circular courſe, they heate this firſt region alſo.

The loweſt region of the aire is hot and moiſt, both by nature and accident.

The uppermoſt region hot and dry.

Now as theſe two regions are of themſelves hot, and

The middle region is only cold, at leaſt reſpectively.

moiſt, and hot and dry; ſo the middle Region is only cold, but drier where it is contiguous with the uppermoſt, and more moiſt where it is nigher the loweſt. This great coldneſſe of it, enforced together, by an *Antiperiſtaſis* (as we ſay) or oppoſite contrarieties of heate above, and cold below.

The Ayre then being divided into theſe three Regions, wherewith the uppermoſt, as comprehended within the concavity of the fiery Element, is ever hot and dry, the loweſt hot and moiſt, but of a weake and debill heat, which by a breathing cold may be changed; the middle Region is alwayes cold.

CHAP. 2.

Where Meteors are compoſed. Of Clouds, where they are faſhioned, together with the ſolution of ſome queſtions concerning the middle Region.

In what region of the Ayre the Meteors are compoſed.

NOW remaines to know in which of theſe Regions any of theſe Meteors are framed: and firſt, whether or not Clouds be generated in the middle Region of the Ayre? It is moſt likely, that not there, but in the lower; becauſe in it diverſe other Meteors alike in matter and forme are framed.

To which, not ſo much cold is requiſit, as to the other two; yet the nature of Clouds being conſidered, we ſhall finde them to be generated in the middle Region onely.

For, ſeeing Clouds are nothing elſe but vapours mounted, and thickned by condenſed cold; then ſure they

they cannot bee framed in the uppermoſt Region of the Ayre, becauſe in it the Sunnes rayes are directed, lacking reflex, beſide the circular and Spherick motion it hath, by vertue of the proximity of the Elementary fire, which warmeth it againe: this thickning or condenſing cold cannot be in the lower region, by reaſon of the heate of it through the reverberation of the Suns rayes, beating upon the ſolid bodies of the earth, and waters: ſo there reſteth the middle Region, in wch the reflex faileth, & the vertue from above too of the direct Sunnes rayes; ſo that naturally it being cold, in it only theſe vapours muſt be condenſed to a cloud.

What clouds are.

Clouds are faſhioned in the middle region.

And whereas I was ſaying before that it ſhould ſeeme that the Clouds are begotten in the loweſt Region; in reſpect that in it, Waters, as Dew and Fountaines, at leaſt their matter and forme are brought forth, that alwayes cannot hold; becauſe that Fountaines, and Rivers, are rather bred in the concavities, and hollow places of the earth, than of it, or rather flow and have their ſource from the Seas.

Neither muſt my words be miſtaken, when I ſay that the middle Region is naturally cold, ſeeing before I have ſet downe the Ayre, naturally to be hot and moiſt; for when I ſay that it is cold, it muſt bee underſtood, but reſpectively, in regard of the other two, as wanting the reflective heate of the lower Region, and the circulative heat by the *ignean* or fiery warmeneſſe of the other.

Now if it be objected that ſeeing the middle Region of the Ayre is cold, and all cold things are heavie, and ſo conſequently tend downeward; what can be the reaſon that this middle Region falleth not

Concerning the middle region.

Solution. thorow the loweſt to its own centre of weight, which is the earth? It availeth not; for firſt, not all frigidity draweth or tendeth alwayes from its circumferences, to the centre, but that only which is abſolutely and ſimply cold; as that of the Earth and Waters, and not that of the Ayre, which (as I ſay before) is but reſpectively cold; yea, albeit that the middle Region divide not the loweſt in whole, yet in parts it doth; as in raine, when it falleth from the middle one upon the diſſolution of a cloud.

Finally it may be ſaid here, that clouds not onely may bee ſeene beneath us to inviron the tops of our lower Mountaines; for I my ſelfe croſſing the lower Alpes, at *Genoa*, have ſeene them below me along the ſides of the Mountaines; they likewiſe may be perceived to glide over the Plaines, and ſwimming over our Lakes and Rivers: yet that ſerveth not to prove, that they are generated in the loweſt Region; but rather argueth the aſcending of theſe vapours, and the gathering of them together; of which the clouds muſt bee coagulated and no otherwiſe, as that they are abſolutely there framed. But this by the way.

The foggy vapours which we ſee like clouds skimming our lakes are but aſcending to frame the cloud.

CHAP 3.

Of falling Starres, Fleakes in the Ayre, and other such fiery Meteors.

THere be foure Elements as all know; the Fire hot and dry, the Ayre hot and moiſt, the Earth dry and cold, the Waters cold and moiſt. Now as of the moiſture of the Waters, whether in their owne Element, or on the Earths ſuperfice, are compoſed all watery vapours, as clouds, raine, dew, haile, ſnow, and hoare-froſts, &c. Even ſo, from the dry parts of the Earth, calefied, or made hot by the Sun-beames doe proceed fumy exhalations, whereof the fiery and burning Meteors are generated.

The matter and forme of fiery Meteors from whence they proceed.

But ſo it is, that of theſe vaporous exhalations, whereof all the ignite and fiery Meteors or impreſſions are compoſed, all are not framed alike; for according to the diverſity of the diſpoſitions of their matter they are either round or long, or more long than round, or more round than long; for if by the efficient and materiall cauſes, which are the Sunne-beames exhaling theſe fumous evaporations from the drieſt part of the Earth, theſe ſpumeous exhalations are ſuch as are combuſtible and capable to bee kindled (if it be of a like length and breadth:) then in that caſe, it ſhall be ſeene to burne in the uppermoſt Region of the Ayre like a blazing fire of ſtraw: if it bee longer than broad, then is it taken for thoſe long falling Stars, which by the Meteorologians are called

Dali. If otherwayes broader than long, then are they called fiery inflammations, which ſeeme to reele in the Ayre, as it were, and to ſhoot hither and thither. And becauſe ſometimes theſe exhalations (although dry) have ſome coldneſſe in them; therefore the ejaculation of that cold matter, maketh the Meteor to ſeeme by that extruſion to fall; as being in labour to expell it; whence more properly are our falling Stars, which Stars at ſome times ſeeme to fall aſide, at other times ſtrait downe, or upward, according as their matter is for the time either diſpoſed or placed.

What are our falling-ſtars.

What maketh them fal down ſeeing they are light?

And if it be objected how contrary to their nature can they deſcend or fall downe, their matter being light and not ponderous? I told before, that that commeth by expulſion, and by way of projection; for confirmation whereof, may be added the experience we have of Thunder, whoſe bolts and claps light at times, even at our feet; otherwhiles what in our houſes, beating downe Pinacles and Steeples, the tops of Turrets and the like, although it be both light and dry; and the reaſon is, That Thunder being generated in the middle Region of the Ayre, not by exuſtion of any kindled hot matter, but rather by a ſeparation of an expelling cold; meane while this cold thickning and coagulating it ſelfe together with violence, in a manner detrudeth the hot matter, which with it was thither drawn up, and maketh ſuch a noiſe and terrible din, the time of that expulſion, that not only the Ayre ſeemeth to bee rent aſunder, but the very Earth alſo appeareth to tremble at its violence.

Solution.

Of thunder, the matter whereof, and place where.

Iuſt

Iuſt ſo, as the matter of the falling Stars is placed, they fall either ſtraight down, aſide, or upward, as before I noted. Even ſo is it with the Thunder.

Now, as thoſe vapors, thickned in the ayre, doe produce the afore-ſaid effects; ſo ſhall it not bee thought amiſſe, to ſay, that the ſame ayre, being thickned, with their vapors, but not condenſed in a cloud, by ſuſception of light, but chiefly from the Suns rayes oppoſite to it either by night or day, but chiefly by night, become fiery coloured, and looke as burning; the ſame vapors ſtirring to, and fro, and being ſomeway thickned, by refraction of light, doe aſſume unto themſelves variable, and diverſe colours; and thoſe fires in effect are the ſame which vulgarly are called pretty dancers: and by reaſon that the materiall cauſe of ſuch impreſſions is ſwift, and ſoone vaniſheth, therefore they abide and remaine the ſhorter time; for ſuch phantaſmes not being come to the full perfection of other Meteors, (as ſeldome they are ſeene to doe) ſo their abode, and being is but ſhort, and inconſtant, they being compoſed but of hot, and dry exhalations, from chalky, rocky, ſandy and ſulphureous parts of the earth, there being a mixture of moyſture with them.

The matter & forme of theſe which we call pretty Dancers.

And to the effect, that this may be ſomewhat better cleared, we muſt conſider: That foure ſorts of vapors are exhaled, or drawne up out of the earth by vertue of the Sunnes rayes, beſide the ſmoake of our fires, which aſcending to the ayre alſo augments theſe fiery Meteors.

Fower ſorts of vapors aſcend from the earth and waters which are the neereſt matter of all Meteors.

Firſt vapors hot and dry, not having ſo much humidity in them, as may be able to overcome them; but

but rather ſuch, as may make this dry vapor to be continued, for no earthly thing can continue without moiſture.

Secondly, cold and dry, which altogether are of the earth's nature, virtually cold, albeit formally all vapors are hot.

The third are thoſe vapours which are hot and moyſt, where humidity predominateth over the heat.

The fourth kind of vapors which aſcend, are cold and moyſt, in which abſolutely watry moyſtneſſe beareth rule, and this vapor virtually is called cold. Theſe foure ſorts of vapors then are the neereſt matter of all our meteors.

The firſt whereof, *viz*, hot and dry vapors, doe aſcend through the ayre quickly, even to the concavity of the firy and ignean element; where being enflamed and enkindled, it becommeth the right generator and propagator of our fiery Meteors: whereas, the ſecond, being hot, and moyſt, doth not aſcend ſo high; and becauſe it is eaſily reſolved, it commeth to bee ayre.

Ayre what.

The other two cold and dry, and cold and moyſt vapors are elevated aloft alſo, but no farther then to the colder parts, where they are thickned and coagulated together, by the inviroining cold; but ſo, as cold and moyſt are converted to raine; and the other cold and dry to wind, or this falls downe with the pluvious or rainy vapour. This being ſo, we may ſee, that there are foure kindes of vapors and exhalations, conformable to the foure elements which make up the matter of theſe Meteors; in ſuch ſort, that as there are

Raine what. wind.

hot,

hot, and dry exhalations, and cold and dry, even ſo there are hot vapours and cold and humid ones alſo.

Since then, you know the matter of wind, raine, falling ſtars and inflammations in the ayre, let us heare what can bee objected: One demands, what is the cauſe that the falling ſtars or other deſcending flames or flaſhes make no ſuch noyſe as the thunder doth, ſeeing their matter and manner of compoſing is almoſt alike.

Queſt. What is the cauſe, that the falling Stars make no noyſe as the Thunder ſeeing one matter is common to both.

Anſw. Becauſe the cloud which throweth away and expelleth them, invironeth not them in her belly, as their clouds doe, in which the matter of the thunder is; for the thunder burſting thorough the cloud occaſioneth the clappe.

Queſt. Now if it be asked, what meane theſe fiery inflammations, which at ſome times in the night are ſeene, either amongſt our horſe feet when we ryde, or about their maines, or ſometimes like the glaunce of a candle light before, a little above or about us? The anſwer is, that theſe dry exhalations, as diverſe other things, are of ſeverall degrees; ſome elevated to the higheſt region, others to the middle region, and theſe, which aſcend no higher then this low region where we inhabit, being compoſed of a more oleagenous, or oyly ſubſtance, doe inflame ſooner, than theſe of the middle region doe, as being invironed with cold.

What meaneth theſe fires wee ſee by night before us or by us when we ride at ſome times.

Or if it be asked? Why ſee we not ſuch inflammations in the day time as in the night? No queſtion but that then they are, and more frequent then in the night, but the greater light obfuſcateth the leſſer.

Why are they not ſeene in the day time?

Or if it be asked; What meane the rents and clefts (as it were) which we ſee in the firmament, as if it

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were opened and hollowed in ſome places? That is nothing elſe, but the vapors and exhalations, carryed up to the ayre, which are condenſed and thickned together; where, by accident, if in the midſt of this condenſation, any part be more ſubtile, or thinner then the extremities are; that thinneſt part, appearing black, and the two extremities coloured, maketh people believe that it is an open gappe, which indeed is not.

What be theſe complainings and laughing which ſometimes are heard in the ayre?

Queſt. As to that queſtion; by what cauſe it happeneth, that moanings, mournfull voyces, and ſometimes alſo laughings are heard in the ayre? I thinke the Meteorologians anſwer not ſo fully ſatisfactorie as theirs, who treate of ſpirits, whom I may well call Phyſiognoſticks: for the Albertiſts, upon this place, ſay, that the cauſe is, the multitude of exhalations, extracted out of graves and other Subterranean places, preſſing upward, thorough places not proportionable for them; and being of themſelves, of a reſolutive nature, doe make noyſes, not unlike to thoſe of men; which in my conceit is ridiculous: and yet ſuch is their gloſſe upon the latine Text, *De die igitur ſol prohibet.*

They are Aereall ſpirits.

Anſw. But I incline rather to their opinion, who, ſpeaking of the nature of ſpirits, ſay, that theſe Cachinnations or laughings, and weeping voyces, which we heare, are rather Aereall ſpirits; which is handled more largely in my title of ſpirits, where you may find all their orders and natures.

Now becauſe the matter of comets, is of greateſt moment, amongſt all the Meteors; I haſten to them.

CHAP.

CHAP. 4.

Of Comets, their matter, forme, nature, and what way they portend evill to come.

COmets, being of the number of Ignean and fiery Meteors; No queſtion, they are compoſed of a like matter; the difference being in the quantity of that matter more or leſſe, to wit, dry, clammie and hot exhalations, in their framing being condenſed, and by reaſon of the motion of the ſuperior bodyes, in the fiery element beginning to kindle, doe make theſe comets; and thus they differ from the fiery Dragons, and falling ſtars; for theſe Meteors, once kindled by way of exuſtion, and extruſion, or projection, are throwne downe ſuddenly, and ſo vaniſh; where, on the other ſide, the dry and hot exhalations, whereof Thunder is compoſed by way of detruſion, (the cloud renting aſunder, in whoſe body it was encloſed) doe preſently vaniſh, as lightnings (their forerunners) doe.

Now where the nature of comets muſt be ſuch; that neither the firy kindling of them may ſoone conſume it, by the greatneſſe and violence of it; neither muſt their matter be ſo weake and thinne, that the fire may on a ſudden overcome it, but ſuch as may endure at leaſt for a little ſeaſon, both with the quality of the fire, and the diſpoſition of the matter condenſed and thickned; and yet ſo as the exuſtion or kindling of the matter and condenſed exhalation, beginning at the

The nature & forme of comets.

The reaſon of their long hayre or beard.

end of it may aſcend upward, til it conſume the whole extent of its rayes and beames upon the matter combuſtible, in forme of a beard, or long diſcheveld lock of haire, continuing ſo for a time; from whence *Cometa à Coma*, hayre, hath its denomination.

Now the forme and ſhape of theſe exhalations, is not ever after a like proportion or faſhion; that is, alwayes long and broad; ſo that the one end being kindled, the other remaineth but enlightned, like a beard, from whence they are called *Crinitæ Stellæ*, or *Barbatæ Cometæ*, bearded Comets. For ſometimes their figure wil be Spherick and round; ſo that the fire taking theſe Spherick exhalations in the middeſt maketh the blazing beames which extend from the centre to the circumferences, to looke like long hayre circled about a face or head.

Sometimes they are round.

Halo s. I .area. What are the Circles about the Moone, which we call broughes?

Neither muſt it be thought that this haire or invironing beames are like to theſe which before a ſtorme we ſee incompaſſing the Sunne, but more frequently the Moone, which *Ariſtotle* calleth *Halæ & Halones*; for theſe Circles by us called broughes, are a world of way remote from the bodies of the Sunne and Moone, and in effect, are but in the troubled Ayre, with aboundance of exhalations and vapours, thorow which, the Sunne and Moones rayes, making way to themſelves, do faſhion theſe circles about them there. Whereas theſe circles or long beards of the Comets, are directly under, yea, ſometime above the concave of the Moone; and thence to the firſt Region of the Ayre they are conveyed with the Comets of that ſame matter of exhalation, and nature; although our moderne Aſtronomers, now averting this *Ariſtotelian* opinion

opinion, have found out ſome Comets place to bee above the Moone.

What courſe the Comets obſerve.

This being briefly ſpoken of the matter and forme of Comets, it may be asked what courſe they have? to which I anſwer; firſt, that the motion of Comets is common with that naturall courſe of the world; for either it is from the Orient to the Occident, or from the Weſt to the Eaſt: at times moſt frequently it declineth to the South, and at other times to the North; now high, then low, now ſeeming neere to the Earth, then remote from it.

Anſwer for the diverſe courſes of Comets.

And if it be ſaid, how can Comets have ſo many different courſes, ſeeing a ſimple body can have no more but one motion of it ſelfe? To this I ſay, that as the Sphere of fire and the ſupreme Region of the Ayre, by the heavenly motions are wheeled about from the Orient to the Occident; thus the Comets exiſt above the firſt Region, and ſo naturally with it they ſhould keepe the ſame courſe: in reſpect that conformably a thing placed, muſt turne with the place, in which it exiſteth. So if this firſt Region by the rapidity of the Heavens be moved; much more ſhould Comets, they being neerer to it than the firſt Region.

Now albeit the Heaven, Fire, and Ayre move in a circular motion, yet they move not all alike, for by certaine degrees the courſe of the one is ſwifter than the other; ſo that the Ayre as neereſt to the Earth, is ſlower than the other two. By this ſubdeficiency then, the Ayre, and they within it, ſeemes but to goe about frõ Occident to Orient of its own proper motion, having regard to the ſwiftneſſe and velocity of

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the ſuperior courſe. And whereas I ſay, that they move high and low, to and fro; that is to be underſtood in ſo far that every thing perfectible ſtriveth to attaine to its owne perfection; which conſiſteth in the approximation and neere attaining and touching of the generant, which chiefly beareth rule in the place, whereat they aime or tend; whether that thing engendred bee a Star, or any other celeſtiall vertue, whereunto this ſubdeficient ſtriveth to attaine.

What maketh the Comets commonly move from the South to the North.

Now the reaſon wherefore moſt commonly Comets doe reach, either to the South, or North, is to be attributed to the ſpeciall influence of ſome other Star drawing them thitherward; as the Loadſtone maketh Iron turne towards it: and whereas ſometimes they appeare low and neere the Earth; at other times farther remote from it: that muſt be appropriated either to the inflamation of the Comets matter, either at the neerer or farther end, or elſe to the height, or lowneſſe of the Region, above which it is elevated: for none of the three Regions, but have in them their owne degrees and ſtations, ſome parts in them being higher than others are.

The place of their abode commonly.

The place of their appearing is moſt frequently in the Northerne Climates; and that moſt often under *Via lactea*, which is that white coloured draught called the milkey way in the firmament, which may be perceived by night, reaching in a manner from Eaſt to Weſt. The time of their abode againe is but at ſhorteſt ſeven or eight dayes; albeit I reade of ſome that blazed halfe a yeare; but ſuch have ſeldome happened: nevertheleſſe the ſhortneſſe or length of their abode, is to bee imputed

to

imputed to the bigneſſe orſcantneſſe of their matter.

Now reſts to know, whether or not theſe Comets may portend or prognoſticate bad or infortunate events of things here below, and whether over particular perſons or Countries in generall? To this the Philoſophers (who will have all things, either above or below, to be and exiſt by naturall reaſons, and admit no prodigies or things beyond nature) make anſwer that Comets are but meere naturall things, no way fore ſhewing evils to come.

Whether or not they can portend evill to come.

The Philoſophers deny it, admitting them but as naturall things.

Becauſe (ſay they) when *Iupiter* fals to bee in the ſigne of *Piſces*, or in the ſigne of *Cancer*, if then the Comets appeare, it foretokeneth aboundance, and wealth, as in the dayes of *Iulius Cæſar*, there was one ſeene; which nevertheleſſe had no evill enſuing upon it; as it may bee ſeene in *Albertus* his Commentary upon *Ariſtotles* Text in the Meteors, latinized, *Ejus autem quod eſt.*

The Philoſophicall reaſons why not.

Beſides this ſay they, when Comets are ſeene, then theſe evils which follow them, and which they portend ſhould fall forth through all or very many parts of the Earth, ſeeing they are ſeene by all, or moſt: the contrary whereof is knowne.

Beſides, that burning Lances or Speares which now and then alſo are ſeene in the Ayre; and other fiery impreſſions, which are of that ſame matter with theſe Comets, ſhould foretell evils to happen, as well as they which are not.

But above all, ſeeing it is ofteneſt thought, that Comets either foretoken great winds, or raines; none of which can be, ſay they: not winds, becauſe the matter whereof the winds behoveth to be, which are dry

Other of their reaſons why they can portend no evill to come.

exhalations, are converted towards the framing of the ſame Comets themſelves.

Not raine; for no one thing can be a ſigne of two oppoſite contrarieties. Thus ſeeing Comets portend drouth, they cannot likewiſe preaugurate inundations, and overflowings; finally, much leſſe the death of Princes and Monarchs no more than of other private men; ſeeing the ſame conſtellation and aſcendent may be equall, and have regard to meane men as well as to them, in a like diſtance.

Other reaſons of theirs.

Which reaſons, with diverſe moe albeit at firſt view, they may ſeeme forcible; yet being better conſidered their inſufficiency will ſoone appeare: for none of the naturall Philoſophers but doe acknowledge their Prognoſtications, for ſome one thing or other; albeit the Aſtrologicall Philoſopher particularizeth them more punctually.

The contrary is ſeene by experience.

And thus they ſay, that a Comet circumbeamed about with that which they call long hayre (to ſay ſo) invironing it as we ſee, about the Sunne, Moone and Starres; before a ſtorme and great tempeſt, doth ſignifie and portend great debording of waters; whereas if it bee but radiant in one ſide, that is a ſure ſigne of terrible and deſtructive drougth, and conſequently of famine and ſcarcity; becauſe without humidity and warmeneſſe corne and fruits cannot grow.

Now as high winds move and ſtirre the Seas with other waters; ſo from that commotion ariſeth raine and boiſterous ſhowers; ſo that appeare how they will, yet they ever portend ſome one evill or other.

As for death of Princes and change of eſtates foreſhowne by them, experience of former Ages can qualifie;

lifie; and by late miſerable proofe it may be underſtood by that blazing Star, which appeared in the yeare 1618. I being at that time in *Florence*, where an *Italian* Aſtronomer, upon the third Bridge, drawing in his Table-bookes the height and aſpect of it, was overheard by us who gazed on him, to cry although with a low voice, *Væ Germaniæ*, Woe unto *Germany*: and who ſo is, but never ſo little acquainted with the hiſtories of diverſe Nations, ſhall ſoone perceive in them what lamentable accidents have enſued after extraordinary deluges, and overflowings of waters, and intollerable drougths; but more eſpecially after the appearing of Comets, what dreadfull effects according to their affections: ſo we require, that thoſe Recuſants would with the Philoſopher, who denied that the fire was hot, but put their finger into it to try the truth of his aſſertion.

Lamentable accidents which have followed after the appearing of Comets.

Neither do our Aſtronomicall Philoſophers want their owne grounds, wherein they ſettle the warrant of change of eſtates, after the apparitions of theſe Comets; and this for one.

That the exhalations of hot and dry vapours from the Earth, whereof theſe Comets are made, betoken a bilious and wrathfull, ſudden and irefull diſpoſition of the in-dwellers of theſe Countries; for the ſame ayre which they attract, and emit, doth ſomeway affect them, and this ayre is filled with theſe exhalations, reſolved by the heat of the incumbing Sun; ſo no queſtion but this ſame way it moveth their bodies and minds to feare fiery and ſudden revolts, fightings, ſeditions, and uproares.

The reaſons which our Aſtronomicall Philoſophers give, that Comets may portend change of States.

Comets appeared in England before their Coun-

Examples of Comets appearing before desolation.

trey was conquered by the *Normans*: and thereafter another, when they subdued *France*. What more remarkable one then that which appeared above *Hierusalem*, before its sacking and captivity? And againe, what desolation befell all *Italy*, almost after that prodigious debording of waters which fell from the *Alpes* without any former raine? *Charles* the 8th. of *France* his entering thereafter, and the disasterous chances that followed thereupon can testifie: all which our and their stories can record, besides many others, as *Sabellicus* in the *penult.* booke of his last *Æneids* doth intimate.

Neither yet may I be induced to beleeve, that the Starre whereof *Tichobray*, that famous renouned and noble Astronomer maketh mention, which is yet seen and was affirmed to be (though the Prince now bee dead) most fitly appropriated to the victorious, wise, and fortunate *Gustavus* King of *Sueden*, to have beene no other than a Comet, what ever reasons he alledgeth to the contrary. Albeit such remarkable Starres are rather observed to appeare at the death of great men and Kings, than at their birth. Neither must we instance the example of the Starre, which was observed by the wise men of the East, at the birth of our Lord and Saviour at *Nazareth*; such extraordinaries should be admired, not inferred to exemplifie things.

Answer to the former objections.

For answer to this, that the death of common people may as well happen under these Comets, as that of Princes: there is no question but that the supereminency of great persons and States making them the more remarkable, maketh their death also more perspicuously to be notified.

And

And as in the Title of curioſities I have ſhowne, that not ever the moſt curious queſtions of Arts and Sciences are the moſt profitable; Even ſo in this I allow not of *Hali* the Iew his commentary, upon the centiloquy of *Ptolomee*; where, referring the death of Princes to comets he thus ſaith.

Quòd ſi apparuerit cometa Domino iſtius regni exeunte in Oriente, ſignificat mortem Regis, vel principis; ſi autem Dominus iſtius regni fuerit in Occidente, ſignificat aliquem de regno ſuo interfecturum Regem; I over-ſlip the interpretation of theſe words, leaſt the divulging of them might more harme than profit. Alwayes leaving Philoſophicall alterations, thus much by naturall experience we may reſolve upon; that they never appeare, but ſome bad event followeth thereon, either to the countrey over which it blazeth, or to which it aſpecteth; or elſe to that countrey over which ruleth a ſtarre which that comets tayle tendeth towards or followeth; though much rather to that countrey which it hath aſpect unto: not by vertue of its influence, but by reaſon of the ſuperabundancie of maligne, dry, and hot exhalations regorging and diſperſing themſelves over it.

Concluſion of comets with a particular obſervation.

CHAP 5.

Of Raine, Dew, hoare-froſt and their cauſe.

AS hot and dry exhalations are the matter and cauſe of Meteors in the upper region of the aire, of which before: Even ſo, cold and moiſt vapors are

the cauſes of theſe; after this manner; vapors elevated up into the ayre, by force of the Sunnes beames; and being ſeparated from the heat which accompanied them; either, by that heat's aſcending higher, and leaving the groſſer vapors; or the ſubtilleſt of that heat being extinguiſht by the groſſenes, &aboundance of cold and moiſt vapors, which mounted up with it in the ayre: or elſe by the coldneſſe of the place, the middle region of the ayre. Theſe groſſer vapors I ſay ſegregated from that heat, which accompanied it, and being thickned and carried about in the ayre for a time, fall back againe to the earth; but being firſt coagulated in a cloud, which diſſolving, falleth down to the place from whence it aſcended: ſo that by a circular motion firſt the waters reſolving in vapors, the vapors thickning in a cloud, then that diſſolving back againe into waters, imitateth in a manner the circular motion of the Sunne, by whoſe approximation as theſe vapors are elevated, even ſo by his elongation (if I may ſay ſo) they doe fall backe againe.

The firſt matter of raine.

The way how raine falleth downe.

Now, as this is the generall cauſe of theſe moyſt Meteors, ſo is it the particular cauſe of the falling of Rayne: for Raine being a watery vapor, carryed up by heat into the Ayre, and there that heat leaving it, reſolveth and falleth downe againe in great or leſſer ſhowers, according to its quantity.

The matter & manner how dew is engendred.

Dew and Hoare-froſt are not ſo generated, for why? When there is not ſuch quantity of vapors elevated in the day time (through want of heat to draw them up, or through great drowth upon the earth,) they are not carried high: in hoter countreys they fall downe againe before the day be ſpent, and that by them

them is called *Serene*, as in France particularly: So when theſe elevated vapors are thickned in waters, without either ſo much heat as may dry them up, or ſo much cold as to congeale them; then I ſay the dew appeareth.

What is that which in France we call Serene.

Now the Hoar-froſt happeneth otherwiſe; as, when the like exhaled vapours are congealed, before they be condenſed; whereby you may ſee that dew falleth in temperate times and places, whereas Hoare-froſts fall in Winter and in the colder parts of the earth: and the reaſon may be alleadged, that, ſeeing vapors are hoter than water; in reſpect of the concomitating heat, whereby they are carried up; no queſtion, but more cold is required, for the congelation of vapors, then of waters: and ſo if in cold ſeaſons, and places, waters congeale, and harden, much more may we ſay of vapors congealable into Hoare-froſt. Thus we have touched the materiall and efficient cauſes of dew and Hoare-froſt; ſo it ſhall not be amiſſe to ſhew that the time when the Sun ingendreth theſe Meteors in the ayre, by the drawing up of theſe vapors, from out the earth and waters, muſt be, when the loweſt region of the ayre is, calme, ſerene and cleare, without wind raine, or cooling clouds; for they being mounted thither may either hinder their aſcending or condenſation and thickning; as alſo the ſtirring winds would hinder their condenſation, or at leaſt their congregation or gathering together.

The matter & manner how Hoare-froſts are faſhioned.

Now that both dew and Hoare-froſt are begotten of vapors not carryed high in the ayre, by this it may be knowne; becauſe we ſee little Hoare-froſt or dew, in the higher mountaines, where it ſeemeth likelieſt,

The place where dew and hoare-froſt are framed.

likelieſt, they are made and doe recide in regard of the cold there; which is ſo much the more probable in this, that the heat, which elevateth theſe vapors from low and Marſhy places, carrying (as you would ſay) a burd en heavier then their hability can comport with, leaveth them ere they can aſcend any higher.

Beſides that, we may ſay, that the ſecond region of the ayre, being higher than theſe mountaines, and carryed about; and in a manner drawne after the circular wheeling about of the heavens, diſſolveth theſe vapors by its motion; and by this meanes maketh the dew and Hoare-froſt, for ſo I expound *Pruina*. Notwithſtanding this, a greater motion is required, to diſgregate and ſunder apart heavy and many vapors, then few and light ones; now ſeeing the matter of Snow, and Raine is greater and containeth a great many more vapors then the matter of dew and Hoare-froſt: Therefore it is, that in exceeding high Mountaines, neither raine, dew, nor Hoare-froſt fall; becauſe of the violent motion and great flux of the ayre there: for that matter is rather even wheeled about with that violent motion, whereas in the lower Mountaines againe, becauſe of the leſſer flux and motion of the ayre ſnow and raine falls, but not deaw nor Hoare-froſts.

Some more good obſervations of dew and Hoar-froſt

To end this part in a word then, I ſay, That dew and Hoare-froſt have a like matter common to both, *viz.* moyſt vapours exhaled from the earth and waters, but not highly elevated in the ayre; and (except in quantity) they differ not, but onely in this, that dew is faſhioned of moderate cold, the other is begotten by a more violent.

Chap.

CHAP 6.

Of Snow : its cauſe, matter and nature.

What Snow is.

THe matter of Snow, is a cloud, compoſed of an aereall ſubſtance, whereby it may bee made ſome way hot; and of a terreſtriall and earthly matter, whereby when it is diſſolved, it leaveth ſome muddy ſubſtance behind it; but the moſt ſpeciall matter of it is of the vapors exhaled from the waters diſperſed over the earth. Their place, is in the middle region where violent colds are; which exceſſive cold muſt not be thought their generation only, but then, when that cold is diſperſed through the whole ayre; for then this cold is not ſo ſharpe and piercing, as that cold is, which, by the diſperſed heat in the ayre, is reenforced and crowded into one place. Now becauſe ſuch colds are not ſpread abroad through the whole ayre, but at certaine times, as in winter, in the end of Autumne, and in the beginning of the Spring; therefore it is that in winter in the tayle of Autumne or in the beginning of the Spring, Snow falleth (at leaſt then) moſt frequently. And becauſe the Northerly Climats are coldeſt and fartheſt remote from the hot Zone, as there where the Sunne beames hath leaſt reflex;

Much Snow in the Northerne climats, and Why?

----Quod ſol obliqua non niſi luce videt.

Therefore it is alſo, that in theſe places ſnow is moſt uſually ſeene.

Now if it be ſaid, how can it be, that the ſnowy cloud

cloud muſt be of a hot ayrie diſpoſition, ſeeing the other two ingredients are earthly and wateriſh vapors which naturally are cold, for by this I ſhould include contrarieties in one ſubject? To which I anſwer; that there are no abſurdities in that; for in this caſe, the one is as ingredient, the other as egredient, the one over-comming, the other remitting ſomething of its dignity: for as the cold holdeth together this ſnowy cloud, till it diſſolve into water; ſo, before this cloud begin to diſſolve into ſnow, we find the ayre which before was marvailous cold, during the time of the congealing of this cloud, to wax ſomewhat hoter by reaſon of the aery heat, which leaveth the cloud and diſperſeth it ſelfe through the ayre. From whence likewiſe we may gather the reaſons why the ſnowy cloud, before it diſſolve in the ayre, is cleare, and cleareth the earth alſo: Whereas the rainy clouds doe both dimme the sky and earth, & are exceeding cold immediately before the rayne fall downe? That is, becauſe the rainy cloud, hath nothing but groſſe and heavy earth and watriſh vapors in it; whereas the ſnowy one, hath beſides them, the ayre incloſed, which being by nature warme, and then being thruſt out of the cloud by the predominancie of the other two, cleareth and warmeth both.

Difference betwixt the Snowy cloud and the rainy one.

Chap.

CHAP. 7.

Of Windes, their true cauſe, matter and nature, &c.

IN the former part of this treatiſe, we have heard that there are two ſorts of exhalations, whereof all Meteors above us, in the Ayre, are compoſed: one of them moiſt, called vapours; the other dry, called fumes or ſmoke; not that any of theſe are ſo either wholly dry or moiſt, or that they have no mixture of others, for that is not: but that the predominancy of the one above the other, in the compound, maketh the denomination.

Now as the heat of the Sun, extracting theſe two from the earth and waters is their efficient cauſe, ſo they againe are the materiall cauſes of the Meteors made up by them, *viz.* vapours, the cauſes of raine, haile, ſnow, dew, clouds and ſo forth. As the dry and fumous exhalations are the cauſes of winde in particular, as alſo of the hot Meteors above mentioned. Hot and dry exhalations then are matter and cauſes of the wind; and as they are elevated in the Ayre by the force of the Sunne; ſo no queſtion but from that ſame Ayre, the winds begin to blow, and not from the Earth firſt; which in this may be diſcerned; becauſe that the higheſt Mountaines (I meane, if they exceed not the firſt Region) Towres, Trees, Steeples, and ſo forth, are more agitated with winds, then the lower and baſer are, as being neerer the ayre.

The matter and cauſe of winde.

Feriunt ſummos fulmina montes.
Sæpius ventis agitatur ingens
Pinus-----

And

And the reaſon is, becauſe ſtraining to mount aloft conformable to their nature, they are reverberated againe by the middle region, their oppoſite (being cold and moiſt) to their hot and dry nature.

The beginning of wind is but ſmall, but it encreaſeth in blowing.

Now as the beginnings and firſt ſprings of Rivers are ſmall, but by corrivation of other leſſer ones they increaſe: Even ſo the firſt beginnings and principalls of windes are commenced but with few exhalations; no queſtion but their increment floweth from the adunition and combination of more exhalations; Whence it is, that ſome yeares are more windy and ſome ſeaſons too, then others; and commonly the dryeſt Summers maketh the windieſt and moſt tempeſtuous winters.

A place of Scripture concerning winds ſolved.

It is ſaid in Scripture, that the wind bloweth where it pleaſeth, and that none knoweth, either whence it commeth or whither it goeth. And it is truth indeed to ſpeake particularly, we feele it and find it, we know it evaniſh away into the many vaſt and ſpacious inturnings of the ayre; but from what particular place it floweth, we know not well: for as they are ſmall in their principalls, ſo no doubt, but they receive augmentations in their progreſſe. Here then it may be inferred, that winds and raine are not procreated of the ſelfe ſame matter, as ſome fooliſhly doe maintaine; which by this only may bee evidently confuted, that often times the windes are abated by raine; and commonly after raine we have windes: The firſt for this naturall reaſon, becauſe that violence of winds blowing clouds together, and the invironing cold condenſing and thickning them together, makes them diſſolve into water.

What maketh raine commonly follow winde.

The

The other is becauſe of waters or raine falling from the clouds, by which meanes the Ayre is warmed, and conſequently the Earth; which maketh it yeeld aboundance of hot exhalations for the Sunnes rayes to tranſport upward to the Ayre, wherewith wind is framed againe.

And what after-raine.

And if it be objected, that exhalations are common cauſes of winds, and yet of the ſame winds, ſome are cold, as the North, and Eaſt, whereas the Southerly and Weſterly are commonly hotter? To this may be anſwered, that the exhalations themſelvs are not the occaſion of that, but the diſpoſition of the Climats from whence they flow; the Suns heat never aproaching the North Climat, but afarre off, and obliquely, or ſide-wayes; occaſioning the cold of it, and conſequently of the winds blowne from thence.

What maketh ſome windes cold, other hot ſeeing one matter is common to both.

Whereas more perpendicularly it glanceth on the other Meridian and Weſterne parts; by which means, as the Earth is warmed, ſo are the winds.

And if it be asked, why in the height of Summer (the Sun being in *Cancer*) that then are feweſt and loweſt winds, as in the extremity and cold of Winter there are few likewiſe, as by experience may be ſeene:

To that may be anſwered, That as in all things extremities are vicious, even ſo in this matter; for great heat and drought in *Iune*, *Iuly*, and *Auguſt*, doe keepe back the winds and their matter, as extremity of cold doth in *December* and *Ianuary*.

What maketh that in the heat of Summer there are feweſt winds, ſeeing then there ſhould be moſt.

The Earth in that time of Summer, being burnd up with ſcorching heate, hindereth the winds to riſe; becauſe the earth then is burningly dry w^th^out any mixture of moiſtneſſe; out of which drougth of the earth, without

without ſome moiſtneſſe no fumes can be exhaled.

So the Ayre clogged with cold, thick, heavie, and lumpiſh clouds of raine and waters, holdeth (as it were) the winds within their Precinct; hindring them to blow then, till the Ayre be disburdened of that load, and doe give way to the winds to ſport themſelves in the ſpring, recompenſing their long captivity with licencious unbridled blaſts.

The way how the wind bloweth.

Or to know how the wind bloweth is this: Firſt, the exhalations whereof it is compoſed, are carried from the Earth, high up to the middle Region of the Ayre, but ſo, that when it is there, it is encountered and repercuſſed, toſſed and moved with cold and condenſed Ayre; finally it is put aſide, from whence againe by violence it is throwne downe by the cold predominating in that Region, ſo it ſtriketh upon this lower Region of the aire, in the deſcent of it; not right and diametrically downe, but ſlentingly; which ayre againe beating the Earth, by the ſuperiour impulſion, and the earths repelling it upward or back againe, maketh it (following the round circumference of the Ayre) to blow about, filling it with its noiſe.

As for the number of the winds, what Countries be ſubject to ſuch or ſuch winds, what maketh the Northerly winds to blow dry, the Southerly moiſt; I refer the firſt to Sea-men, whoſe experience is ſurer than our contemplation: the other are ſoone ſolved by a good Naturaliſt; for the Sunne ſhining upon the South Countries more kindlie and hotter than upon the North, maketh the winds conforme to the Ayre of the Countries, hotter there, than in the North, and moiſter.

Chap.

CHAP. 8.

Of Earthquakes, their cauſe and nature.

THIS queſtion dependeth upon the knowledge of the former; for the nature and matter of winds being well underſtood will cleere this the ſooner. I formerly ſaid then that cold and dry exhalations, by the force of the Sun elevated up in the Ayre, and from thence by predominating cold beaten aſide, and from that through the Ayre downward to the Earth back againe whirling upon the face of it, and round about through this loweſt Region, are the matter and nature of the winds; which cold and dry exhalations, I ſay, are the matter of theſe winds, which often times ſo lowdly blow upon the ſuperfice of the Earth; that not onely Ships on the Seas, Trees in the Woods are overturned by their violence; but likewiſe high Steeples and Towers are made to ſhake and tremble in ſuch ſort, that even Bels have beene blowne out of the one, the roofe of the other uncovered; our fruits and cornes beaten downe to the terror and amazement of the beholders.

Againe, the way how the wind bloweth.

Even ſo dry and cold exhalations, but theſe more groſſe, and not ſo Elementary as the firſt, encloſed within the bowels and concavities of the Earth, (for Nature hath no vacuity) and there converted into winds, doe ſtruggle and ſtrive as it were, to burſt up through this earth to attaine to its owne right place, which is upwards; and that is the cauſe of this trembling

The matter and forme of Earthquakes.

bling and motion of the Earth which we call Earthquakes.

What makes the Southerne countries most subject to these earthquakes.

And becauſe the Southerne Countries are hotter than the Northerne, in reſpect of the Suns approach to them, I meane in its perpendicular beholding of them, they (I ſay) are conſequently more apt to bee enflamed, and ſo to be concaved and waſted within; yea, and to be more capable of the engendring and reception of theſe exhalations and winds, and their effects: therefore it is, that theſe Countries are more ſubject to the motions and tremblings of the earth (whereof their particular Hiſtories afford us teſtimonies enough) than the more Northerly are; for they having groſſer and leſſe matter evaporated from them by the Sunnes heat, doe admit leſſe concavities, and ſo fewer exhalations: ſo then, both winds and Earthquakes are of one ſelfeſame matter and ſubject, *viz.* of cold and dry exhalations, wherof they are framed; and they differ onely in this; That the exhalations whereof the winds are, doe riſe more purified, of the ſuperfice of the earth, and as we ſay in Schooles, *Ex Elemento ſuperiori*; whereas the other, more groſſer are from below, *Et ex Elemento inferiori*, ſo that both in matter and motion they doe agree.

The ods betweene wind & earthquakes

Neither is this called in queſtion by *Ariſtotle*, handling the ſame matter, *Lib.3. Meteor.* Where his Commentator *Albertus Colonienſis* compareth this motion of the Earth by the power of theſe incloſed vapours in the bowels and cavernes of it, to the motions and tremblings of our pulſe, by the *Syſtole* and *Diaſtole* of our ſpirits, in and above our hearts, and ſo within the cavity or hollowneſſe of our bodie.

A very fit compariſon.

And

And yet, not content with this compariſon, he inſiſteth in the duration and continuance of the Earths motion, ſaying, that even as the tremblings wherewith our bodies are agitated (during the fits of a Feaver) doe continue ſo long as the faulty and peccant humour reigneth in our veines, and accordingly diminiſheth its proportion, as the matter occaſioning the feaver impaireth: even ſo it is with this trembling of the earth, having reſpect to the multitude of vapours and to their declining; for the more theſe vapours are, the Earthquake laſteth the longer, and is more violent; but when they ſpend and decline, its violence and continuance is remitted.

As our bodies are ſtirred with a hot ague, even ſo the earth with an incloſed wind.

I know now the Philoſopher and Naturalliſt (who admit nothing done in nature, to bee otherwiſe than by naturall meanes) will admit nothing beyond the reach of Nature when they are poſed.

How is it then that commonly after Earthquakes, Plagues, Peſtilences, and death of Beſtiall doe enſue? To this they anſwer, That the exhalations which cauſeth the Earths motion, having burſt up through the Earth, infecteth our Ayre with the infective breath of it, which it contracteth when it was incarcerated within the bowels and waſt places of the ſaid Earth?

A remarkable queſtion.

Likewiſe they aſcribe ſome ſuch or not farre different reaſons in their owne degree, to the cauſe of evils which uſually (I wil not ſay ever) befall after blazing Comets, w^ch although in effect they have their owne probabilities; yet they ſhould not deprive our great Creator from the ſupernaturall working thereof, who by ſuch unuſual and terrible *Syncopes* of nature, would even foretell, and have mortall men, (whom

Solutions both Philoſophicall and Theologicall.

theſe prodigies admoniſh) forewarned of ſome effects of his wrath to enſue; to the effect, that if they will amend, and turne to their God by humiliation, and repentance, they may avert that evill threatned, and prevent his judgements.

CHAP. 9.

Of Thunder, Lightning, Haile and certaine other ſecrets of Nature, with their ſolution.

AND firſt concerning Thunder. *Queſt.* What can bee the cauſes of the lightning, and fire-fleakes, which in Latine are termed *Fulgura, & coruſcationes,* either in the clouds themſelves, from whence Thunder proceeds, or wavering in the ayre? Whether or no the exhalations, incloſed within the cloud from whence they doe proceede, be the cauſe, and occaſion, both of the Thunder it ſelfe, it's ſound, and of the coruſcation and lightning alſo?

What is the matter of lightnings.

Anſw. Yea; but diverſly, and by it's owne courſe; for firſt by the agitation, and motion of it, within the cloud, it cauſeth the ſound after this manner: The dry exhalation, (whereof this ſound, thunder it ſelfe and lightnings are generated) aſcending upward, in the vapour, to the middle region of the aire, is engroſſed in a cloud, through the coldneſſe of the place: ſo it is compacted, and this exhalation coarcted within the belly of that thickned and condenſed matter: which dry, or firy exhalation, thus incloſed, (by *Antiperiſtaſis* or contrariety) by the environing cold, in the

the outward body of the cloud, ſtriveth toget out, and make way for it ſelfe; at laſt, with much reluctance, overcomming the environing cold, maketh that hideous and horrible noyſe, wherewith here on earth wee are ſo terrified, that ſometimes Women are ſtrooke in ſuch feare by it, that they part with child; So by that ſame agitation it kindleth too, being of a combuſtible ſubſtance, *viz.* of a dry, terreſtriall, and inflamable matter; which, once kindled by *Antiperiſtaſis*, expelleth it ſelfe, with violence, through that cold thickned cloud: but firſt in, and about the cloud it maketh theſe flaſhes and coruſcations ſpoken of before: ſo in lightnings, it diſperſeth it ſelfe, here, and there through the aire, both clearing the cloud above, and the aire beneath.

The right cauſe of the noyſe of thunder after the lightning.

Now if it be asked; What is the cauſe, why we ſee ſooner the lightning then we heare the thunder clap? That is becauſe our ſight is both nobler, and the eye is ſooner perceptive of its object, then our eare; as being the more active part and priore to our hearing: beſide the viſible ſpecies are more ſubtile, and leſſe corporeal then the audible ſpecies, this being reall, the former intentionall, as the skilfull in Opticks know: and this is the reaſon why likewiſe we ſee the flaſh, ere we heare the noyſe of diſcharged gunnes.

Why we ſee the lightning before wee heare the noyſe.

Queſtion. Againe, being asked, why fire, being naturally light, doth not rather aſcend then deſcend?

Anſw. (To that as before:) Becauſe it is extruded by violence from its abode. Beſides this, it being accoupled to a matter contrary to its owne nature, and that matter predominating, *viz.* A dry terreſtriall

And why doth it deſcend ſeing it is light.

ſubſtance, in which it exiſteth; that I ſay, this terreſtriall matter, tending downe-ward, draweth the fire perforce with it: which may be perceaved by a kindled charcoale throwne out of ones hand, which caryeth the fire along with it.

The cauſe of the admirable effects of thunder.

Againe, if it be expoſtulated, what can be the cauſe of the admirable effects of this thunder? at ſome times bruiſing the blade of a ſword, the ſheath un-offended; melting mony and gold in a pocket, the pocket remaining entire; and killing a Man and not harming his cloathes; And what maketh things touched by it ſmell of ſulphure and brimſtone? And to kill a man in ſuch ſort, that the bolts ſhall bruiſe all his bones, the fleſh never a whit hurt, nor by appearance touched; and the like.

Why the thunder of blacke clouds are more terrible, then thoſe of White.

Thus much for anſwer. The thunder which is expelled or extruded from blacke clouds, is more violent and hath greater force, than that which is ejaculated from the whiter clouds. This thunder then by nature ſubtile, and pearcing, but much more purified in it's diſtent, when it mixeth with the aire, is far more ſubtilized: And againe being by the fire, and heate of the thunder repurged of all groſſeneſſe, it is made ſo purely ſpirituall, that is pearceth ſuddenly, and inſenſible as it were, almoſt all porous bodyes, and never exerciſeth it's force till it finde reſiſtance: And hereby it appeareth plainely how the skin is, as it were, untouched when the bone is broken, which may ſerve for all accidents in this kinde.

But when it onely toucheth the outward of things without any great hurt, it betokens the weaknes, and imbecillity

imbecillity of the matter. And where commonly bodyes, ſo thunder beaten, doe ſmell of ſulphure and brimſtone, the matter of Thunder giveth the reaſon, for it is compoſed of dry, and ſulphureous exhalations, as of the ſmoake of *Sulphur-terræ* by *Naples*; of hot ſmoke in bathes, and rocks there; of *Monte de Sommi*; of *Ætna* in *Sicilie:* of the burning hills at *Mexico* in *America:* of our *Hecla in Iſland*, and ſuch like chalkie, lymie and ſulphureous places; ſo vapors elevated out of theſe and the like places, muſt make thunder which is compoſed of them, to ſavour of them.

Why thoſe that be thunder beaten ſmell of brimſtone.

Now to thoſe, who aske which is the place where thunder is procreated, and begotten: anſwere may be made, from the groſſe humidity, having in it ſome terreſtriall glutinous, and viſcous humor not eaſily ſeparated from it that it exiſteth in; which being thickned in a cloud in the higheſt part of the middle region whither they are elevated, above all other clouds, compoſed of other moiſt vapours; from thence (I ſay) by the invironing cold, by *Antiperiſtaſis*, or a ſtronger oppoſite part, they are extended and throwne downe.

The true matter of thunder.

Qu. Again, if any demand why blacke clouds are conjectured moſt to containe, and ſend forth thunder bolts moſt fearefull?

I anſwer, indeed as blacke clouds, flaſhes, and lightnings, are little to be regarded, in reſpect that the blacneſſe of them argueth but little firy matter to bee within; But contrarywayes that it aboundeth in wateriſh vapours; So commonly after thunder great

The reaſon why the thunder of black clouds are moſt dangerous.

raines, enſue; the cloud being diſſolved, and the fire expelled. But indeed, if the lightning bee not much to be feared of ſuch a blacke cloud, yet the thunder bolt of it is terrible, as being violently expelled by the predominating cold, even as the great charge of a Cannon enforceth the bullets flight, and cauſeth the roaring noyſe of it.

Of reddiſh, or whitiſh coloured clouds, the bolt is but weake in regard of the rarity, and paucity of cold vapours to expell it; but the flaſhes and lightning will be found dreadfull, in reſpect of the abundance of exhalations, wherewith, after their owne colour, the cloud is dyed.

But leaving theſe fiery and hot Meteors, we betake us againe unto the moyſt and watery ones, as more conſonant and frequent to our climate.

All weake Meteors have one common matter.

Firſt, if it bee asked whether our moyſt Meteors, ſuch as ſnow, haile, and raine, have one common matter, whereof they are generated; and if they have one, what can be the cauſe of their different ſhapes and formes; for we ſee the ſnow broad and ſoft, contrarieways haile, round and hard. No queſtion but one matter is common to all, *viz.* Waters; from which, by vapours they are elevated to the aire; and in which they are diſſolved againe: but the difference ſtandeth here. That the neereſt matter (to ſay ſo) of ſnow, is vapours congealed in a cloud, which hath in it a great mixture of aire; by which meanes, being ſome way heated, when the ſnow diſſolveth, you ſee it holdeth, open and ſoft, by reaſon of that aire, whereas haile hath no airy ſubſtance in it, and thus qualified by experience, that we ſee haile fall downe on a

Their difference in forme, and place.

ſuddaine

ſuddaine, and ofttimes with violence, becauſe of the terreſtriall heavineſſe of it, whereas ſnow falleth but leaſurely.

The reaſon why haile is round may be this, becauſe falling down from the middle region where it is congealed, by the way it reencountereth with ſome circular and round drop of raine or water, which accordingly by the rolling about of the haile it ſelfe, becommeth hard likewiſe; more eſpecially, as not having any hot place, but the cold aire to fall through, till it light on our loweſt region; which accidentally hot, for the time, you ſee, maketh them immediately after their lighting upon the earth, to diſſolve quickly, or at leaſt not long after. And as theſe two are formed in the higheſt of the middle regions, and for the extreame cold which is there are congealed: ſo on the other ſide becauſe the clouds from whence raine iſſueth, doe not aſcend ſo high, therefore they diſſolve in drops before they can be congealed. And ſo by degrees, dew and Hoar-froſt, becauſe they are not mounted ſo high as the matter and clouds of raine; Therefore they fall ſooner, and ſoftlyer then raine doth; ſo one matter is common mother unto all of them, but the degrees of their elevation in the aire maketh their differences: the haile higher then the Snow, the Snow then the Raine, the Raine then the Hoar-froſt, mildew, or dew is.

Why haile is round.

Why raine falleth in drops.

CHAP. 10.

Of Rivers, Fountaines and Springs, their ſources and cauſes.

THere ariſeth a queſtion here not unworthy of our conſideration. Whether the Springs and Rivers, in and on the earth have their originall from the waters of the Sea, by *ſubterranean* conduits, or from the waters on the ſuperfice of the earth which is cauſed by raine; or finally from the huge and unmeaſurable caverns, and hollow places of the earth, in whoſe bowells are monſtrous lakes, pooles, and other ſtanding waters, created of the ayre, therein encloſed, which not having any vent to aſcend upward, but being condenſed there, diſſolveth it ſelfe into theſe waters. Now before we enter into the ſolution of this queſtion, we muſt underſtand, that when I ſpeake of the vaſt and endleſſe caves, like valleys within the bowels of the earth, wherein waters are, that it is no invention of mine own: for *Seneca*, & with him *Ariſtotle* in his *Meteorologicks* in the 19 booke of his naturall queſtions inſtanceth it, ſaying, *Quid miraris* (ſaith he) *ſi diſtructos terra non ſentiat, cum adjectos mare non ſentit?* And againe, *Quemad modum ſupra nos imbres, ita infra nos fluvios aer facit, ſupra autem nos diu ſegnis aer ſtare non poteſt, qui aut ſole attenuatur, aut vento expanditur; ſub terra autem, quod aerem in aquam vertit idem ſemper eſt, ſcilicet umbra aterna*

From whence fountains have their courſes.

æterna, frigus perenne & in excitatè denſitas quæ, ſemper materiam fontibus fluminibuſq; præbebunt, and ſo forth: all wch hee confirmeth in that ſame place by authority of *Theophraſt*, whom hee bringeth in ſaying, That ſince the Earth hath ſwallowed Townes, Cities, and houſes, who can doubt but that there are within her bowels, Brookes, Caves, Dens, and Valleyes? which ſeeing they cannot be empty, muſt of neceſſity bee full of waters. Seeing then all things are compoſed of all the Elements, as of their common cauſes; (For water is a thickned ayre; and the Ayre againe a rarified water:) How then can theſe ſubterranean hollow places, but be full of waters, ſince the Earth doth diſſolve in waters, to fil them up? For the earth being delved or digged but a very few footſteps downe, water doth ſtraight appeare, earth and water being of as great affinity as ayre and waters are: howbeit *Zeno* and others doe contradict this opinion, ſaying; That the Earth is a maſſie, ſolid, and *homogenean* body. I ſay, that abſolutely the Sea (as a common Mother to all waters) is ſhe, from whence all Rivers, and Springs have their ſource, but yet not ſo wholly, but that they may be augmented by raine and water, as wee ſee by experience; that after huge raines, both Fountaines and rivers doe accreaſſe. And if it bee asked, how water being of its owne nature heavie, can leave its owne element and centre, and bee conveighed to the tops of Mountaines and high places, as may bee daily ſeene almoſt every where?

That there is waters within the earth.

The Sea the mother of fountaines.

To this firſt, I ſay, that the Sea being ſome way higher than the Earth, moſt eaſily, by its owne conduits, and channels, it may make paſſage unto it ſelfe, as through ſo many veines.

How Fountaines are on the tops of mountaines.

Beſides

Beſides this, the vapours which the Suns heat, and the power of ſome other Planets, raiſeth from the waters even under the earth, are not ever exhaled and carried aloft to the Ayre, but ſometimes are even retained for a long time in ſolid places of the innermoſt parts of the earth; where gathering themſelves into the concavities thereof, they boile upward by the force of the ſaid agitation, as a pot upon the fire, by the force of an under heate: ſo theſe waters bubling up through the earth cauſe our fountaines; which running downeward againe, to the Valleys and Plaines, doe make our Brookes, Rivers, and Springs. And of this opinion is venerable *Albertus Colonienſis*, commenting *Ariſtotle* upon this queſtion, *Dubio nono & decimo*. Or it may be ſaid, that the caverns and concavities of the earth, being filled up with waters, which diſtill from the want of the caved earth above, are procured by the groſſe Ayre there incloſed and converted into waters, which iſſuing out of the rarer or voider parts of the Earth, above, do occaſion theſe Springs, Rivers, and Brookes.

How mountaines furniſheth water unto fountains.

If it be demanded if ſteepe Mountaines do not retribute and ſend downe waters to feed our Springs and Rivers; there is no queſtion, for in their concavities, of certaine, there are treaſures of waters, which burſting out at their lower parts, doe yeeld plenty enough, to bedew the lower Countries; not that theſe waters are gathered there by raines which fall (for raine-waters penetrate not ſo deepe into the earth) but rather that the Mountaines themſelves, being ſpongeous, doe attract and draw together, their whole diſſolved wateriſh matter, to the frontiers and

concavities; from whence ſurging and breaking-forth through orifices, they grow into ſprings, brooks and ſometime rivers.

Queſt. What cauſeth ſome Fountaines to laſt longer than others? certainly, that muſt proceed from the copiouſneſſe and aboundance of the veine and and waters, ſuch long-laſting ones have, above the others.

Or finally, if it be demanded what can be the cauſe that ſome Rivers, and Springs, which formerly did flow in large ſwift currents, do leſſen, and ſometimes totally dry up? That muſt not be imputed to the ſcituation or change of the Starres, as ſome ſuppoſe; by which (ſay they) all places in the world are altered; but rather unto the decay of the veine: peradventure, becauſe the earth preaſing to fill up voidneſſe, hath ſunke down in that place, and ſo choaked the paſſage, and turned the courſe another way.

Why ſome ſprings ceaſe running.

Neither can there be a fitter reply given unto thoſe who aske; what maketh two Springs or Fountaines which are ſeparated onely by a little parcell of ground, to bee of a contrary nature? yea, one ſweet and freſh, the other brackiſh and ſalt; one extreame cold, another neere adjoyning to it, to bee lukewarme.

What maketh two fountaines a little diſtant, one hot and another cold.

Then the diverſity of Oares or Metals, through which theſe waters doe runne, which is the cauſe of their different taſts and temperatures; as on one parcell of ground ſome flowers and herbs ſalutiferous and healthfull; others venemous, and mortall may grow.

The Moone is often ſaid to bee the efficient cauſe

of

of the ebbing and flowing of the Sea; now if so be (as universally all the Learned hold) what is the cause, seeing shee is universally seene by all Seas in a manner, (and I may say equally) that therefore all Seas flow not and ebbe not alike?

To this I thinke no better reply can be given, than that some Seas there are which be rather Lakes, in a manner, and of fresher water than Seas, in respect of the incessant running of endlesse Rivers into them, whereof they make no account againe (to say so) by subministring matter to Rivers, Fountaines, Brookes, or Lakes, as the Ocean doth: the invironing bankes, and shoares being higher almost than they: such are all Sounds, Gulphs, and (it may be) the Mediterranean Sea also. Or yet we may say, that the profundity and deepenesse of some Coasts hindereth the flowing more then it doth upon shallow and ebbe sands and other valley and low bankes.

The veines through which the waters run maketh them salt, hot, or cold.

Now the cause of our hot Baths neere *Bristoll*, in *Flanders*, *Germany*, *France*, *Italy*, and elsewhere, is onely the sulphureous and a brimstony Oare, or Metall through which their waters runne; as the salt earth through which some waters doe runne, is the cause of their saltnesse, such as the Salt-pits in *Poland*, and *Hungarie*, out of which Salt is digged, as our Pit-coales, and stones are digged out of Quarries. And no question but these waters are heated too by running through such earth.

These, and the like, are the reasons given by Philosophers, for such secrets of Nature, as either here before I have touched, or may handle hereafter: and howbeit, by humane reason men cannot further pry into

into theſe and the like, yet no queſtion but the power of the great Maker, hath ſecrets incloſed within the bowels of Nature, beyond all ſearch of man: To learne us all to bend the eyes of our bodies, and minds upward to the Heavens from whence they flow, to reſt there in a reverent admiration of his power, working in, by and above nature; and that by a way not as yet wholly manifeſted unto mortall men.

Gods power outreacheth mans wiſdome.

By all which, and many more we may eaſily eſpie as the power, ſo the wiſdome of this our Maker, in diſpoſing the forme of this Vniverſe, whether the great World, or the little one, MAN; in both which there is ſuch a harmony, ſympathy, and agreement, betwixt the powers above, which wee ſee with our eyes, as the Heavens, and the diſtinguiſhed Regions of the Ayre in the greater World, with the Earth and Seas; or of the ſoule, minde, life, and intellect of Man; the heaven in him comparatively, with his body, the Earth, and ſuch like, of the one with the other; that is the great and little world together, as is a wonder. For as in the Ayre, how the lower parts are affected, ſo are the ſuperiour; and contrarywiſe, as the ſuperior is diſpoſed, right ſo the inferiour. So we ſee that not onely a heaven of Braſſe, maketh the Earth of Iron, but likewiſe wateriſh and moiſt earth, cauſeth foggy and rainy ayre: as a ſerene or tempeſtuous day maketh us commonly either ioyfull or melancholy: or as a ſad and grieved minde cauſeth a heavie and dull body: but contrariwayes, a healthfull and well tempered body, commonly effecteth a generous and jovially diſpoſed minde.

The compariſon of the great & little world.

A worthy ſimilitude.

OF VARIETIES THE THIRD BOOKE: CONTEINING FIVE TREATISES.

OF
1. *Armies* and *Battels.*
2. *Combats* and *Duels.*
3. *Death* and *Burials.*
4. *Laughing* and *Mourning.*
5. *Mentall Reservation.*

BY
DAVID PERSON of *Longhlands* in *SCOTLAND*
GENTLEMAN.

Et quæ non prosunt singula, multa juvant.

LONDON,
Printed by RICHARD *Badger*, for *Thomas Alchorn*,
and are to be sold at his shop, in *Pauls Church-yard*
at the signe of the Greene-*Dragon.* 1635.

Thomas Hamilton, Earl of Haddington d. 1637

TO

THE RIGHT HONOURABLE THOMAS *Earle of Hadington* LORD *Privy Seale of Scotland*, and one of His *Majesties* most HONOURABLE Privy *Counsell* in both KINGDOMES.

Right Honourable,

IF writers of books in former ages have made a gratefull commemoration in the front of their workes, of worthy men, who for their brave deeds either in Peace, or War, Church or Common wealth were renouned, thereby to eternize their fame, and by their examples to extimulate others to the imitation of their vertues; nothing could expiat my tresspasse, if I should passe over your Lordships most accomplished rare vertues, thereby to deprive posterity of so excellent a President, especially amongst your other many exquisite perfections you being in this barren age so worthy a patterne, and Bountifull Patron of letters and literate men. Let antiquity boast it selfe of the integritie of a Greeke Aristides, in the gravity and inflexibilitie of a Roman Cato, *and the rest: yet our age*

may rejoyce to have all these accumulated on your Lordship alone; Envy cannot conceale with what credit and generall applause (as through the Temple of Vertue to the Sacrary of Honour) you have past all the orders of our Senatoriall Tribunall even to the highest dignity; where, like an Oracle, you strike light through most foggie and obscurest doubts. The continued favour of Kings, the aggrandizing of your estate by well managed fortune, the peopling by the fecunditie of you. fruitefull loynes not only your owne large stocke but many of the most ancient and honourable families in our nation, may well set out your praises to the world, but the true Panegyrick which I (if able) would sound abroad your Honours due deserving merits, to which, in all humility and reverence, I offer this small pledge of my entirer affection, hoping ere long to present them with something more worthy the studies and travels of

Your Lordships in all dutifull obedience.

D. Person.

OF

ARMIES AND BATTELS:

VVherein by the way our moderne VVarfare, is compared with the Old *Roman*.

THE THIRD BOOKE.

Section 1.

That greateſt armies have not alwayes carryed away the victory, the reaſon of it; two examples, of Semiramis, and Xerxes.

I FIND in Hiſtories, that not alwayes the greateſt, and moſt numerous armies, have carried away the victories in Battels; whether it is, that the LORD of Hoaſts will diſappoint them who truſt in

 their

Greateſt armies have not alwayes done great,

their numbers, and armies of men, or their Martiall Horſes and their ſtrength, or in their military diſcipline. For it is probable, that as their infinite numbers, cannot ever be ſo well Marſhalled, as that, at all times requiſite, they can come to blowes; ſo on the contrary, if once they chance to turne backes, the Panike feare that ſeazeth on ſo groſſe, and peccant a body, is ſo remedileſſe, that they can ſcarce ever bee brought againe into any right or perfect order, which in leſſer armies, driven to ſuch extremities, we heare and reade to have hapned: Or rather ſhall we ſay with that Captaine of the *Volſci*, marching againſt the old *Romans*?

Armati armatis obſtant virtute pares, ſed neceſſitate ſuperiores.

And againe;

Iuſtum eſt bellum, quibus neceſſarium, & pia arma, quibus nulla, niſi in armis, relinquitur ſpes.

I need not inſiſt too much on battels of unequall numbers, for the Greeke and Roman Hiſtories are repleniſhed with them; yet two I will produce, as incredible for their numbers, as unlikely for their loſſe.

Semiramis innumerable army defeated by a very few under an Indian Prince.

The one, of *Semiramis* Queene of *Babylon*, who ſetting out for the conqueſt of the *Indies*, made up an army of three millions of armed men, whereof tenne hundred thouſand Horſemen, the reſt were foot, beſides many hundred thouſand Chariots, with blades like ſythes, or falchions, ſticking out on either ſide, with many hundred thouſand Camells and Elephants to fight on. Which horrible armie was ſo overthrown by the Indian Emperour, that ſcarce one hundred returned home alive.

The

The other was of *Xerxes*, that powerfull King of *Persia*, who intending to subdue Greece, came downe upon it with such an army, that Rivers were drunke dry by the multitude of his souldiers. *Herodotus* reporter of the former two, reckoneth this whole army to amount to seventeene hundred thousand by land: and two hundred and fifty thousand by Sea, with 2200 Galleys; for, by Sea and land, he intended their subversion, and came downe for that intent.

Xerxes also overthrowne by a handfull of Greekes and Salamines.

The insolencie of this King (environed with this terrible armie) was such; that intending likewise to subdue *Europe*, and for which purpose he prepared to passe the *Hellespont*, (some seaven miles broad) but because his bridge of boates, by the waters impetuousnesse, was overthrowne, which he caused to be contrived for that effect (as *Alexander* did at *Tyre*) he made his Souldiers, with him, vainely to whip the Sea for it's resistance against his so vast power. Nevertheless this presumptuous King (I say) with all his forces, and numbers of men, by a small number of Greekes, was overcome at the Battell of *Thermopilæ*; in so far that, that same glorious King of *Medes* and *Persians*, was forced to steale over the Hellespont, slenderly accompanied in a frigat, or Shallop, in the yeare of the world 4720. or thereabouts, if Sabellicus mistake not.

The battaile of Thermopilæ.

Now as these two remarkable and populous armies were thus defeated by the smaller number, and so confirmeth this assertion afore-mentioned; So who will follow forth the tract of all either divine, or heathen Histories, shall finde it more manifestly approved.

As for holy Hiſtories, unleſſe I were obliged not only by an Hiſtoricall but by an Evangelicall faith alſo, to truſt all comprehended within the old and New Teſtament as undoubted veritie, I could hardly be induced to beleeve, that ſo little a territory as the holy land was (and yet is) could afford ſo many hundred thouſand fighting men, as were ſo often recorded to bee raiſed in it; unleſſe that ſome would ſay, that beſide the bleſſing of God upon that land in making it to overflow with milke and hony, wheat, wine and oyle, that ſo he would have it to abound in men likewiſe.

Sect. 2.

Examples of Greeke, Roman, and Britiſh Battels, where the fewer number have overcome the greater.

THere is a freedome left to every Reader of Hiſtories, to beleeve or not beleeve every particular in them: yet thoſe battailes, where the fewer numbers have overcome the greater, will moſt ſtartle beleefe; as that victorie of *Alexander* over *Darius*; the battails of *Thraſymenes*, *Cannes*, with the *Pharſalian* field, and the like. For *Alexander*, with but a few, did beat *Darius* great hoſts: *Hannibal*, with leſſer multitudes overthrew the *Roman* Conſuls, *Paulus Æmilius*, and *Terentius Varro*; *Iulius Cæſar*, with almoſt the halfe of Pompeys number put him and his armie to rout.

But neither the imparitie of the Greeke, nor *Roman* batails

battels fought by them can give ſo great aſſurance of poſſibility, that ſmall troupes have overcome the greater. As that battell of *Poictiers* by *Edward* the blacke Prince of England, againſt Iohn King of France! where, not onely foure times as many that day were put to rout, by the worthy Engliſh, but likewiſe the King himſelfe was led captive into England; whoſe ranſome redacted his countrie unto that penury, and ſcarcity of money, that they were forced thereafter, to coyne and ſtampe pieces of leather money, as their Hiſtory of that time recordeth.

Iohn King of *France* overthrowne by Edward the black Prince of England.

Neither, was that glorious victory over the French much more remarkeable, nor more ſufficient for proofe of this then was that famous victorie of our valiant Bruce, at the battell of *Bannak-burne*, againſt an other *Edward*.

Edward *Carnarvan* of England overthrowen by Bruce at *Bannak-burne*.

I might adde to theſe two the renowned victories woone by Scanderbeg a petty Prince of the *Epirots*, who with but a handfull of men (as it were) did overcome the hundreds of thouſands of that victorious *Mahomet*, as atl engths may bee read in the Turkiſh Hiſtorie.

Scanderbeg with a handful overthrew *Mahomet*.

Sect. 3.

Whether it be requisite that Princes hazard their Persons in field or not; of the Encouragement that their presence giveth to the Souldiers: When a King should venter to the field; and what Lievtenants are to bee deputed by him; all exemplified.

It Princes may hazzard their persons in a field or not.

OVr Politicians, of latter times, have made it a great question, whether a Soveraigne Prince should hazard his person in battell or not, considering the great losse that ensueth either by his death, or captivitie; a thing never doubted of in former ages; no not by such Kings who though sickly and diseased, have caused to carry their bodyes from their bed unto the field, thereby the more to encourage, with their presence, their mutining and doubting armies; as *Plutarch* witnesseth in the life of *Eumenes*. Yea, *Xisca* had such a conciete of himselfe and his owne presence, that after his death, he ordained his skinne to be flead off him, and a drumme to be covered with it; imagining thereby, that, as he in his life had terrified and sorely beaten his enemies, so the sound of this after his death would be a terrour unto them.

Queene *Elizabeth* on the front of her armie in 88.

Neither, was there any thing encouraged our brave English, at the approch of the Spanish *armado*, more, than the assurance and undismayed countenance of that ever famous Q. *Elizabeth*, ryding in the front of her troupes with a Iaveline in her hand (like an armed Pallas)

Pallas) as the Biſhop of Ely in his treatiſe of the 88. moſt appoſitely relateth.

Philippe de Commines obſerveth nothing more worthy of re-marke in the battell of Fornouncie (which the Italians call the battell of *Tarr* which was ſtrooke at the foote of the *Appennine* mountaines, by the French King Charles the eight, againſt the Venetian armie, under the conduct of the Marquiſe of *Mantua*, their generall, at the Kings returne from Naples homeward,) then the young King his generous encouraging of his people, with a chearefull countenance: and ſo much the more; becauſe that the night before, the armie was ſo terribly frighted with thunder, flaſhes of fire from heaven, horrible tempeſts of winde, and raine, all which he perſwaded his Souldiers, were onely ominous prodigies, to diſmay their enemies.

The countenance of a King a great incouragement unto ſouldiers.

So then, when I ſeeme to admit, or allow the preſence of a King in his Armie, rather than to devolve that charge on Deputies; it is not to bee underſtood, that therefore hee ſhould play or act the part of a Souldier, expoſing his ſacred perſon unto danger and palpable hazard, which are onely for common Souldiers; but onely by his advice, and countenance, to encourage, direct, and enſure all things.

---ſtetit aggere fulti
Ceſpitis intrepidus vultu, meruitque timeri
Nil metuens--- As *Lucane*

ſpeaking of *Iulius Cæſar*, exquiſitly remarketh: neither yet is it to be underſtood, that a King ſhould in perſon be in his battels, and armies at all occaſions, but then only and eſpecially, when the enemy is within, or approaching

When a King ſhould be in proper perſon in a field.

proaching his Countrey; for otherwayes hee may very conveniently doe his buſineſſe abroad, by his Lievetenants. Provided alwayes, that he who is imployed, be not of ſuch eminency, as thereby he bee able to encroach upon his eſtate; and then armed with men, power, and ſtrength, favour and meanes, attempt againſt his Soveraignety: but that by conſanguinity, or other obliging bonds, the Prince bee aſſured of this great mans fidelity and truſt: as examples of former Ages can yeeld ſufficient teſtimony to have beene practiſed: to which purpoſe I will onely inſtance, that notable authority of *Velleius Paterculus*, in his abridgement of the Romane Hiſtory; when he ſpeaketh of that great imployment intruſted unto *Pompey*, in ſcouring the whole Seas of thoſe mighty and many *Pirats* w^h^ infeſted it. *Idem autem* (ſaith he) *in Marci Antonii prætura ipſi concreditum fuit, populus id æquo animo ferebat*; (and why) *Quia rarò eorum invidetur honoribus quorum vis non timetur, tum demum verò extrema eorum formidantur, qui vim in poteſtate habent.*

Why powerful ſubjects are not alwayes fitteſt to bee elected Generals of armies.

Next it is moſt requiſite in the deputed expeditions that two Commanders be not placed over one armie, the Heavens cannot abide wo Sunnes, as *Darius* was told by the *Macedonian Alexander*.

One Generall fitter, not two.

---omniſque poteſtas
Impatiens conſortis erat---

But leaving former examples, or later miſerable experiences of this wee have in hand, I cannot but applaud that memorable Motto of the Duke *de Mayne*, on his Colours and other Enſignes, which doth well to this purpoſe; for when he had taken upon him the conduct

conduct of his Brother the Duke of *Guyse*'s forces, after hee was killed at *Blois*, had these words for his Motto,

---vno avulso non deficit alter
Aureus, & simili frondescet virga metallo.

Section. 8.

Of the Romans *prudency and foresight in sending two Commanders abroad with their Armies; and why the* Grecians *conjoyned two in their embassies: and of the danger of too strict Commissions.*

IF it be objected here, that the *Romans* and *Grecians* (who were chief Masters of this military Art) did in all their expeditions send two Consuls, or Deputies together; yet that maketh not any wayes against the former assertion: for as the severall effects thereof proved not alwayes successefull, as their lamentable warres can testifie; and particularly the bloudy fights betwixt *Silla* and *Marius*, each vindicating to himselfe the honour of captivating the *Numenian Iugurtha*: they commonly were sent, so, that either alternatively they should beare rule; or the younger was accoupled to the elder, that the younger might submit and give way to the gravity, yeares, and authority of his Senior; or finally these Consuls were so attemperated in that charge, that one of a slow and procrastinating disposition was still joyned to one of a sudden and forward nature; yet none of all scarce ever proved successefull

How the Romans and Grecians send two Commanders with their armies abroad.

Their foresight and prudence herein.

to

to the Citie: For what desolation *Terentius Varro* his suddennesse brought unto the State that day that befell him to command, (although against the will or consent of the elder *Paulus Æmilius*) at the battell of *Cannes*, their Histories yet may beare record in letters of bloud.

Fabius and *Marcellus* contrary disposi-tions.

And though *Marcellus* and *Fabius*, were so joyned, that *Marcellus* impatiency was tempered and allayed by the delaying nature of *Fabius*, yet there are few *Fabii Maximi* to endure the upbraiding and insolent bravadoes of a camarade as he did; yea, and of his whole Armie, for not fighting at such occasions as they thought advantagious; of whom the *Poet* said well,

Vnus homo nobis cunctando restituit rem.

And of both, their legender *Plutarch*; That *Marcellus* was the Sword of *Rome*, and *Fabius* the Buckler and defence!

Why the *Grecians* did send alwayes two, in ambassage, or to field.

That the *Grecians* sent alwayes two together, either to wars, or in Embassage, was rather to the effect each should pry into, and controll the others actions, to save their Common-wealth unbetrayed, then for advancing the businesse they were sent about; as in the lives of *Lisander* and *Calicrates* is manifest; every one of them for envy, emulation, and ambition, undoing that which the other had plotted.

Now, as the *Romane* and *Greeke* examples above rehearsed, doe make little for the authority of two Generals over an Armie, seeing the formerly particularized evils doe ensue: In as little doe I thinke their example to be imitated in these our dayes for prescribing particular and precise injunctions unto Generals,

in

in so farre, that they may not in a jot transgresse the limits of their Commission. For though the *Romane* History affordeth examples enow of Fathers; who, when their own sons had returned victorious, and the businesse they went about, well and honourably performed; for which the first day they were honoured with the Ovations and Triumphs due unto victors; yet the next day were put to death for having gone beyond the points of their Commission; yea, but for halting one day more by the way, than punctually they were enjoyned to doe: (though peradventure they had brought the enemy unto such a passe, that if that day had escaped from giving battell, or any other thing of like consequence, the state of the Common-wealth might have beene imperilld, or the enemy escaped, or the like.) Yet I know not how their doings, by Lawes of a well managed state, may be lawfully warranted.

The limitating of Generals Commission dangerous.

For in wars it may be, that the opportunity of doing well presenteth it selfe so, that if the General lose the point of that present service (though his Commission carry no warrant for it) he may hazard to posterity both his fame and credit, and may, (which is more) endanger the state, or Prince whom he serveth.

But as the jealousie of the *Romans* for the conservation of their liberty and state burst out in these strict Commissions; so I shall wish that for the preservation of ours, all expert States-men upon most weighty considerations doe advise, such as the *multifarious* exigencies of affaires require; for I am no wayes to direct.

Sect.

Section 5.

Difference betweene Battels and Duels: that Generals may refuse challenges: with some passages betwixt Hannibal and Scipio in their warres.

Great ods betwixt battels and duels.

NOw to returne to our Battels from which we have digressed; I observe great ods betwixt battels and duels: for in battels neither Generals of Armies repute it a point of disparagement or discredite, if either they refuse to fight, when they are bravado'd by their enemy: nor yet a point of disgrace to sue for conditions of peace and friendly compositions, when all things all cleare in the field: any of which, or both, in matter of duels, should be reputed a perpetuall disgrace, unlesse it were in such termes as the Barons did; mentioned in the Chapter of combats.

Of the first, we have the example of *Fabius Maximus*, whom *Hannibal* bravadoed so insolently, that *Fabius*'s owne souldiers had him in derision. And of late, the Duke of *Parmas* example, who relieved the Towne of *Paris*, from that terrible siege, wherewith King *Henry* the third and last of the *Valoyses* had beleagured it; for rising in armes against him in fauour of the house of *Guise*: I say, this *Duke* having raised this siege, at last releeved the City with necessaries, in spight of all King *Henry* the great, then of *Navarre*, his valour, and hard pursuit; yea, and offer of battell: yet

To shun fighting at times is no disgrace unto a General

yet he returned the way he came without apprehending any disgrace, but deferred till he thought fitting againe to give him battell.

And on the other part, if any of all the worthy Ancients had reputed it an aspersion, or imputation either to their fame, valour, or fortune, who so unlikely to sue for putting off fighting, as that witty, wise, valorous (and till then fortunate) *Hannibal*, and that at the hands of the man on earth, with whom he stood most upon points of credit and reputation, *viz. Scipio*, his *Antagonist*?

And yet the History represents unto us, that the sixteenth yeere of the Punick warres, when *Scipio* the *African*, had invented, and prosecuted that stratagem of warre, to draw *Hannibal* out of *Italy*, by kindling the fire of war in his own Countrey, yea, at the Gates of *Carthage*; which accordingly as he had invented, he put in execution; so that the Countrey and Citie, at the first approach of the *Roman* army, posted away Commissioners unto *Hannibal* to hast him over into *Africk* with all his force, or else that all was undone.

Hannibal sueth for peace at *Scipio*.

Hannibal, I say, considering that policy, and withall remembring unto what extremity he had both driven *Rome*, and almost all *Italy*, and what he might have done if he had not beene so soone fatally recalled; moreover, being landed, and finding his forces not able enough to encounter *Scipio* (both Armies being in sight of other) before the battell should begin, desired parly with *Scipio*, and in these or the like termes the History makes *Hannibal* in mid-field to speake unto him, after serious eying each other.

Hannibals speech unto Scipio.

The Heavens be propitious unto our meetings; now that I, who am the elder, sue for cessation from fighting this day (great Scipio) *impute it unto fortune; whom now I perceive like a woman to favour thee at this time, who art the younger; the variablenesse of these events (mee thinks) should move thee to condescend unto the peace I plead for, yea, as willingly and effectually as I crave it, if you doe but ponder in the ballance of an impartiall and not preoccupied minde, what diversity of chances have fallen out since the beginning of our warres, and how, even now, this same Citie, which offereth conditions of peace, had both your glorious* Rome, *and in it all* Italy, *quaking and trembling under the auspices of my fortunate successes; and how I am still the same man as before: and withall, how the Gods have a watching eye, and revenging hand when they are invocated as witnesses unto equall conditions offered and refused for the preserving of humane bloud.*

And as they ever were, so still they are able, to turne the chance against all, whose swelling presumption would hinder the perpetuall peace of both Empires. I am confident yet, great Scipio (*saith he*) *that the sense of vicissitude in martiall affaires shall touch thee so, as not to indanger all thy fresh former Trophees under the hazard of a doubtfull battell. Call but to minde the fatall examples of so many brave wariours, and particularly of your countrieman* Attilius Regulus (*seeing home-bred experiences are most sensible*) *who having attained the verticall point of honour, and preferment, by the fortunatenesse of his successfull victories, while hee did not command his felicities, was plunged in the miserablest of misfortunes,* &c.

Section

Sect. 6.

That the exploits of our moderne warriours, have bin every way comparable to those of the Ancient; with some examples to that effect.

AS no judicious man can be so unjust as not to retribute due honour to the never dying Worths, and valours, of the many renowned *Roman* and *Greek* Commanders, with others in all former Ages; so ought no man to be so transported with their so largly famed deeds, as thereby to derogate from the true worths, the many most admirable exploits; the undaunted courages, of the many excellent and most warlike Commanders that have of later Ages, like so many Comets, shined in their times, over Christendome; of whom our own Countries (without ostentation I say it) have filled up a very large number.

It is not to be doubted but that in these our latter ages there are men every way equall for all manner of warlike exploits, whether stratagems, policie, or undaunted courage, to the so famed *Hannibal, Scipio, Fabius Maximus* and the rest. That exploit of *Hannibals* indeed, when *Fabius Maximus* had enlabyrinthed him in that straight of the *Apennine* Mountaines was preferable to any in my conceit: with which I ballance that admirable stratagem of Sir *Francis* Drake in firing the Spanish *Armado* in 88. That it bred the ruine of that so huge and expensive Navie and so formidable to this whole Iland.

Sr. *Fr. Drakes* stratageme in 88.

It

Hannibals stratagem.

It is obſerved of *Hannibal*, that being in that ſtraight, and recollecting his wits how to eſcape, with his armie, hee gathered together all the Oxen in the country about him, and under cloud of night, having tyed unto their hornes bundles of vine branches, like little fagots, which he kindled, and therewith chaſed them along the Mountaines. Now they being ſo terrifyed with the flames of fire, burning about their eares, made ſuch a noyſe, and dreadfull ſhow along the ſydes of the mountaines, as they ranne, that the *Roman* army, which lay in the valley, being aſtonied at ſuch a ſight, (it being in the night) when all things are moſt dreadfull) did betake it ſelfe unto the oppoſite Mountaine, and made way to the *Carthaginian* armie which then marched to eſcape: neither think I, but for all the fame of theſe ancient illuſtrious deeds regiſtrated in their records, but if either they had chanced to have adoe with the people of theſe ages, where the acts of warre are better refined, and purified then in thoſe times; Or yet if our commanders had ſerved in that age; but they had come ſhorter of victories here, then ours had done in their atchievements there. But as *Alexander* reputed *Achilles* happy who had a *Homer* to ſound his praiſes; even ſo theſe brave *Heroes* were alike happy, whoſe *Hiſtories* have not beene ſparing to ſet them out in their fulleſt dimenſions.

Section.

Sect. 7.

The difference betwixt the ancient manner of warrefare; and the moderne: how farre the moderne engines of Warre exceed thoſe of the ancient Greekes and Romans.

IN marſhalling of our armies, and Battels, our moderne plans jump almoſt with thoſe of the Ancient; yet our Sieges, beleaguring of townes, and inſtruments of war doe far exceede theirs, whether by Sea, or by land.

And firſt that the forme of drawing up of our armies, is not far different from theirs, appeareth in this. Our armies conſiſt of ſo many regiments, the regiment of ſo many companies, and our companies of ſo many Souldiers; then, ſubdivided amongſt themſelves. Our armies, in whole, having their Generalls commanding them, our Regiments their *Colonells*, our Companies their Captaines, and every one of theſe their *Lievtenants* and under-officers, conformable unto the ſtations of their charge, ſuch as *Sergeant Majors, Quarter-maſters, Ancient Corporalls, Serjeants* of companies, *&c.* A compariſon of drawing up of our armies with the Old Romans.

Even ſo the Roman armies were compoſed of ſo many legions; the legion made up of 6000. ſouldiers, over which a *Tribune* had command: theſe againe were ſubdivided into ſo many Cohorts: the Cohorts into ſo many Manipuli, which being redivided in Centuries, were againe ſubdivided in *Contu-*

berneys which were the meaneſt company in a legion. Theſe had a Captaine, a Lievtenant, and Enſigne-bearer, wherefore they were called *Subſignarii Milites.*

Thus two centuries made up a Manipulus, 3. Manipuli a Cohort, 10. Cohorts a legion, and ſo many Legions an armie leſſe or more according to the exigencie of their affaires. When a Legion ſtood in battell array, the leaſt ſquadron of it, was a Manipulus wherein was two Ordaines conjoyned together making 10. in front, and their Lievtenant in the reire: this excellent order of the old Roman warre-fare, is well nigh imitated by our moderne warriours, as I was ſaying in the fields, when, both then, and elſewhere their armies, were like well governed Citties. Yet on the other ſide the Roman ſieges and all their engines of warre, come ſhort in compariſon of our manner of beleaguring now adayes, notwithſtanding their *teſtudines, vineæ, aggeres*, and *Turres*, which were hurdells and plankes of Timber, built in ſuch ſort that Souldiers might ſecurely fight under them, or like Mounts of earth rolled before them, under which they might make approach unto Walles, either for ſcaling, or undermining; theſe and all others of this ſort, when they come in compariſon with our fire workes, but chiefly our thundring Cannons, they are found to be but of little availe.

If the Roman field milice exceeded ours, yet our beleaguring, & inſtruments of warre exceed theirs.

But what ſhall we ſay? Truly we may conclude that in theſe dayes, true valour and ſtrength had their juſt aſſayes, *cum latus lateri, dextra dextræ, pes pedi*, as *Plautus* ſaith, were oppoſed to one another. Whereas now the braveſt, and moſt venturous fellows with-

out much proofe of their undoubted courages, are proſtrate on the ground : So that for any thing I either heare or can reade in the French Hiſtories, where manifeſt fights have beene in theſe latter ages ; and ſince theſe *Vulcanian* Thunderers have beene in requeſt ; I underſtand (I ſay) yea even by thoſe who were preſent, and had borne a part of the play themſelves ; that ſo ſoone as the fire and ſhowres of ſhot were ſpent, the victory almoſt beganne to incline, unto one ſide, or other ; before the puſh of Pikes, wherein commonly the ſtrength of battels conſiſt ; the Romans indeed had their *fundi*, and hurling ; Darts, but what were all theſe unto the former ?

The terribleneſs of our pieces.

Sect. 8.

That the Ancients in their warres had greater opportunities to try their proweſſe, in battell ; then the modernes have.

AND as in their field battells, and ſeiges of Cities, their people had occaſion afforded, by the lacke of theſe ſhot, to prove themſelves and ſhow ſufficiently unto their commanders, teſtimonyes of their valour, ſtrength, and dexterity : So in their Sea-fights, though they had no Ships of any bigneſſe but Galleys (which then, as now, were of a low tyre ;) yet, whenſoever they encountred, they had occaſion to exchange blowes enow.

How the Romans had a fitter occaſion of trying their valour then we.

Whereas our Sea-fights (as they ſay) now adayes,

are able to astonish Neptune himselfe; no mercie being to be found nor almost place secure within our Ships, exposed as butts unto the fury of the roaring Cannon. That their numbers in these kind of fights exceeded ours, beyond compare, there is no question, their Histories doe verifie it: but if ever in their time there was such a Naumachie or sea-fight in their seas, as the battell of *Lepanto* betwixt us and the Turkes, I doubt of it. Where the favour of the Lord of Hoasts seconding the Christians order, valour, Commanders and Souldiers willingnesse, and affections to that fight, purchased that victory worthy to be sung by a King, yea the best since *Salomon*, of one that bore Crowne, KING *Iames* of blessed memorie, which at length is to be seene in the Turkish Historie, and in *Du Bartas* small workes.

The battell of *Lepanto* surpasseth all the Romans Sea-fights.

Sect. 9.

The manner how the Greekes and Romans ordered their battells, both by Sea, and by land; the battells of Cannas and Trasimenes described.

AS for the disposition of the Roman, or Greeke Sea-fights and battells, I find little other order, then that they were drawne up in a cressant, and so was the battell of *Lepanto*. But for their land battels, I read of foure kinds of pitching of them: For they were either into a straight front, by them called *recta acies* very usuall amongst them; Or else

Foure formes of drawing up of armies used by the Romans

elſe the manner of imbattelling obſerved by *Cæſar* a-gainſt *Arioviſtus*, was in requeſt, which was, when one corner of the army was advanced neerer the nee-reſt point of the enemies army then the other was; to the effect, the one being wearied, the other might ad-vance to renew the charge a freſh, which by him in his Commentaries was called *acies obliqua*. The third I underſtand, to bee that obſerved by *Scipio* in Spaine called *acies ſinuata*, in manner of halfe Moone, whoſe points were advanced, as the Sea-battells ſpo-ken of before: And his reaſon of marſhalling of them thus was, becauſe he underſtood his enemies beſt men to be placed in the middle of their army, and ſo by ad-vancing his cornets he diſcomfited, and put their bat-tallions unto confuſion, before the better Souldiers could come unto blowes. The fourth is *acies gibbera*, or *gibboſa*: When the maine battell advanced, but the two cornets lay lagging behinde in manner of Creſ-ſant too, with the Hornes or points arreirward: This forme was obſerved by *Hannibal* at the battell of *Cannas*, whereas he did the contrary unto *Scipio*, nei-ther wanted he his warrand as the effect proved.

And howbeit Sr. *Walter Raleigh* in diverſe places of his great and judicious workes takes me much, yet in nothing more, than in this deſcription of the plaine order, fight, and end of that battell at *Cannas*, which was thus; *Terentius Varro* having inforced the groſſe of *Hannibals* Creſſant, in which, contrary to *Scipio*'s order, his worſt ſouldiers were, whilſt ſome *Numidi-ans* counterfeiting a flight, to traine the *Romans* unto their chaſe, ſome further within the Creſſant made way unto them; till in the end, they were en-

Deſcription of the battell of Cannas.

countred by *Hannibal* himselfe: who standing in his squadron of *Carthaginians*, under the shaddow of the vanquished grosse battallion drove them back againe, within the circumference of the halfe Moone, whose face looked towards him; which closing again, where it was first inforced, environed the il-governed *Roman* Armie; so that they were exposed as a pray, unto the fury of the *Maures, Numidians, Spaniards, Carthaginians*, and some of their Countrey-men *Italians*, whereof *Hannibals* Armie consisted.

The defeates of *Cannas* and *Trasimenes* rather by the *Romans* unskilfulnesse then prowesse of their foes.

Which overthrow of the *Romans*, with that at *Trasimenes* received under the consulship of *Cneius Servilius*, and *Titus Flaminius*, hapned rather by the fury and blinde ambition of the two younger Consuls, for the time (who would not attend the opportunities of times, and places appointed by their elders, *viz.* *Paulus Æmilius* Consul with *Varro*, and *Cne. Servilius*, with *Flaminius*,) then by the dexterity of *Hanniball*; or yet the valour of his people above them; yet may they not counterpoyse, or at least over-value that of *Pharsalia*, where, the *Romans*, amongst themselves, gave sound proofes of their courages unto their owne destruction: although *Iulius Cæsars* part (with fewer numbers) was more to be admired above *Pompey*, in regard of his providence above him in this.

Section

Section 10.

A Maxime in militarie diſcipline, inferred to confirme Pompeys overſight at the battell of Pharſalia.

IT is a *maxime* of military diſcipline, that if thy enemy invade thee, by running upon thy Armie with force, in that caſe, to abide their charge in ſetled and ſound ſtation; if otherwayes, they budge not to flye upon them: for *Pompey* his Armie being compoſed of the flowre of the *Roman* youth; no queſtion, but if hee had commanded them to give the charge, they, whoſe hot bloud and riſing ſpirits, had incenſed and redoubled their courages, by the onſet, had inforced *Cæſars* hoſt (which although it was compoſed of old beaten ſouldiers, yet being ſo farre inferiour, as it was in numbers unto them) to a flight, ſo to avoide the ſwelling and furious onſet: whereas, on the contrary, they were commanded to abide *Cæſars* charge: and thus by that attendance, their young and firſt fury being cooled and abated; withall, *Cæſar* (as a well experienced Commander, enjoyned his people to invade theſe young blouds, imagining (as it came to paſſe) that being amorous youths, they had rather turne their faces than have them torne (howbeit theſe skars are rather the honourable badges of true valour, than hinderances or lets of love to a diſcreet mind) by which meanes, as *Pompey* loſt the field, ſo did hee all hopes of redintegrating his loſſes againe, making his recourſe unto the King of *Ægypt*, where by the way he was killed.

A maxime of military diſcipline.

Pompey his overſight at the battell of *Pharſalia*.

Section 11.

That the French, what within their owne Countrey and abroad, have fought more battels of late times, than any other Nation; and of their ſucceſſe in them.

The neerer our owne times writers are more ſparing to write without ſure warrands.

BVT to leave *Greeke* and *Roman* Hiſtories, and to paſſe by the battels, whereof in them are plenty to be read: I will deſcend to the later Ages, where the liberty of Writers is ſome way better reſtrained from debording; and whereof the commemoration will bee more taking, and delightfull unto the Reader.

And to begin with the *French*; I finde, that they have given manieſt battels within this later Age, both at home in their owne bowels, and abroad: and at home with ſtrangers, though not with diſcredit, yet with ſmall advantage.

More battels of late amongſt the French, than all countries beſide.

For to take a ſurvey, either of their battels with the Engliſh in *France*, or in *Italy*; either in *Lombardy* for *Millan*, or in, and about *Naples* with the *Spaniard*; we ſhall finde by their owne Writers, that few of them have beene fortunate: in ſo much, that beſide the common loſſe in field, their Generals were either taken, or killed, both by the *Engliſh* and *Spaniſh*.

Indeed I will not ſay, but at ſome times their deeds have beene moſt worthy, both in the fights at *Giradadda*, and *Tarr*, which may counterpoiſe the loſſe of

Gaſton

Gaſton de Foix at *Ravenna*; the Duke of *Nemoures* at *Ceriſoles*; and almoſt the captivity of their King at *Pavie*: yet what ſhall we ſay? they have loſt all their footing beyond the *Alpes*: whether by their misfortune, ill government, or the Heavens decree, which have bordered *France* in w^th^ ſuch unpaſſable marches, in a manner, that it may learne to live by it ſelfe without encroaching upon her neighbours.

Few fights abroad to their commendation.

As for their inteſtine battels againe; ſo many in ſo ſhort ſpace have not bin ſtruck in any place throughout the world.

For albeit *Flanders* and *Holland*, have beene now for long time debated, betwixt the *Spaniards* and the *States*; in ſo farre, as it hath beene, *ſedes belli*, and the publike Theatre whereon the Tragedies of bloudy *Mars* have beene acted unto the view of all Chriſtendome, ſince the beginning of their troubles, and the reformation of Religion, as well as *France*: yet we ſhall ſcarce find in all their Hiſtory of one ſet battell; for the ſtory of *Newport* which comes the neereſt unto one of any, was rather a ſucceſſive fight, than a pitched field.

Section

Section. 12.

That emulation amongst the Princes in France, rather than Religion, was the cause of the many civill-warres there.

The *Spaniard* more slow and mature in their doings than the *French.*

VVHether the procrastinating and long suffering humour of the *Spaniard*, with whom the *Hollanders* have to doe (wherein they exceed the *French*) whether their feare to hazard the undoubted losse of the whole Countries unto the parties overcome upon a doubtfull battell; or whether (like wise *Scipio*) they are loth to lose a souldier, be the cause of their never appointing set field, I know not: but I dare say, that there have beene more civill-wars and battels strooke within the bowels of *France*, since the reformation of Religion, there, than in all Christendome, for that or other causes whatsoever. The battell of S. *Dennis*, *Moncontour*, *Yvri*, *Iarnack*, *Coutras*, *Arques*; besides, diverse others lesse remarkable may witnesse. Which argueth necessarily how hot and sudden the disposition of that people is. And how justly *Iulius Cæsar* in his Commentaries (and with him divers others) have hit, when hee describeth the nature and humour of the ancient *Gaules*.

Neither must it be thought, that the zeale of Religion onely rouseth up this ferocity, on both sides, unto such bloudy fights and battels. For other Countries about, have appeased all dissentions about Religion

gion with fewer fights, and leſſe bloudſhed at, leaſt in open field, as who frequent their Hiſtories may finde. And howſoever Religion was partly a motive unto it: yet it was ſometimes uſed as a cloake to cover the emulous ambition of ſome great men: as that betwixt thoſe illuſtrious Families of *Bourbon* and *Guyſe*, both aſpiring unto the Crowne, by the viſible declining of the name of *Valois*, in the perſon of King *Henry* the third.

Emulation betwixt the houſe of *Guyſe* and *Bourbon*, and not religion the cauſe of warres of *France*.

As for all the late battels fought in *Germany* and other places of Chriſtendome, there being ſo copious and plentifull relations of them every where to bee had, I paſſe them by, and referre the Reader to them.

OF

OF VARIETIES THE THIRD BOOKE.

OF DVELS AND COMBATS.

AS by Duels and Combats (under the falſe gloſſe of gaining, maintaining, or repairing of Honour and reputation) there hath beene more young, generous, and Noble bloud ſpilt over Chriſtendome, then by any other Peſtilentiall Cuſtome whatſoever; So, no Nation hath beene ſo univerſally and ſo long infeſted with them, as France; in

France most subject to Duels.

in so farre, that it almost may be said that the first fountaine of them sprang from thence, all Christendome beside not affording so many memorable ones as it alone. Their heat and impatient sudden fury that way being imputed by some of their owne Writers to *Mars* the Predominant Planet over that Clime: And

Combats authorised.

first I observe, that by their Salick Law Title 69. Duels were authorized, and that Law seconded by the *Gambetts* Law, as *Agobardus ad Ludouicum Imperatorem* hath it; and continued so (though not without some opposition till the reigne of *Henry* 2.

Sect. 1.

Of combats by Champions for Cleering of Queenes Honours: Combats betwixt Ladies; betwixt Churchmen: and betwixt Iudges: Combatants, rewarded by Kings their Spectators; and S. Almachius kild, for declaming against Duels, &c.

Lotharius tryall of his wifes Chastitie.

Lotharius (saies *P. P. Nicolas* in his 5. *Chapter*:) desirous to make tryall of the Chastitie of his Wife *Teuberga* was advised by the Bishops to choose a Champion, and his wife another; which two were by single Combats to resolve the Scruple: Their Queenes too had recourse to Duels, in choosing Champions to maintaine their Honours and cleere any imputations layd against them: for *Iudeth*, Wife to King Lewis the Gentle, being by him accused of having dishonoured his bed, by accompanying with *Bernard* his kinsman and Prince of the bloud, was purged

Champions in Duell to cleere Queenes Honours.

purged of that ſtaine by *Bernards* entring the liſts, and freely offering Combat to any that would maintaine that wrongfull quarrell. And their Ladies alſo, not Content to have their honours and their other quarrels maintained by their Champions, have themſelves to publike view, within liſts, body againſt body fought in ſingle Combats, as *Petrus de Auriliaco* in his Title *de Duello*, affirmeth.

That Ladyes have fought combats.

And not onely their Women, but their Churchmen alſo, were licenſed to decide any debate of great conſequence that had riſen amongſt them by Duell, whereof I will onely mention that out of *Goffridus Abbas Vindoci* in his 3. booke 38 Epiſtle. of *Rhenold Cheſnell* Clarke of the Church of *Xanites*, who fought a Combat with one *Guilleaume* a Religious *Monke* of *Vandoſme*. But more memorable is that of *Anſelme Beſſe*, Churchman and Treaſurer of the Church of *Laon*, who being accuſed of having robbed the Church treaſury, of ſeverall rich and precious pieces, and ſold them to a Goldſmith of *Soiſſons*, who had depoſed againſt him, obſtinately denied the fact, and craved combate, which was granted; they fought, and the Goldſmith was overcome; notwithſtanding theſe things were ſold him by the *Monk*: yet (ſaith my Author) the Goldſmith for having violated his oath, which he had given unto the other, never to reveale the theft, was condignely puniſhed.

Combats of Church-men.

Nor have their Iudges beene exempted from this triall by *duell*; for *Chopnius de Domanio, Tit.* 26. §. 15. telleth of one *Marſilli* a Counſellor of the Parliament who, being accuſed by another of corruption or bribery, was diſpenſed withall by the authority of Parliament

Combats of Iudges and Counſellors at Law.

liament to challenge his accuſer, and did fight with him in the quarrell.

Moreover, *Petre d' Auriliack* declareth, that their Kings did not onely authorize Duels, but were oft-times eye-witneſſes and ſpectators of them. *Charles* the 6. (ſaith *Froſſard* in his 3. *Tome*) was preſent on S. *Thomas* day, behinde S. *Martines* in the fields at *Paris*, at the combate of *Iohn de Carrouges*, and *Iames Legris*, and from that time conferred a Penſion on *Carrouges*: And *Charles* the 8. (ſaith *Ferronius*, *lib.* 1. *Hiſt.*) did behold *Zerbulo* and *La Laude* whilſt they fought, and rewarded both, giving to *Zerbulo* 300. Crownes, and to *La Laude* 50. And of later dayes K. *Henry* the 2d. was preſent at that of *Chaſtangueraye* againſt *Iarnack*; of which hereafter.

Combats, whereof Kings have been ſpectators.

Combats rewarded by Kings.

Nay, the natures of that people in former ages have beene ſo averſe to have any cuſtome, how pernicious ſo ever, abrogated, that it is recorded of S. *Almachius*, that for having declamed publikely againſt Duels and the frequency of them in his time, he was, by the obſtinate and ſeditious multitude over-run, and violently put to death.

S. *Almachius* ſlaine for ſpeaking againſt combats.

But not minding to fill up this Diſcourſe with the many famous and memorable combats that have bin fought amongſt themſelves, and againſt ſtrangers in that Nation; as that of *Peter Bajard* againſt *Don Alonzo de Sancto major*: *Anno*, 1503. Or that of the Earle of *Arguemont*, againſt *Montmorancy* in the Iſle of *Maiſiers*; or that of *Delarges* againſt *Vaudrey*, *Anno* 1521. with many others: Or of later dayes, how in King *Lewes*'s voyage towards *Limoſine*, ſix ſcore were killed in ſingle combate; with as many or thereabouts

Six ſcote men killed in combats in one voyage of K. *Lewis* of *Fran.*

in

in his voyage towards *Savoy*. I will only mention in ſtead of all two moſt memorable ones, the one in *France*, the other in *Spaine*; and firſt of the *French* in the following Section.

Section 2.

A recitall of two memorable duels, the one in France *betwixt* Monſieur de Creky, *and* Don Philippin: *The other in* Spaine *betweene* Pedro Torrello, *and* Ieronimo Anca, *both of* Arragon: *in the preſence of* Charles *the fifth.*

THE *French* ſhalbe firſt inſerted here, although lateſt acted, for it was but in the dayes of King *Henry* the 4th. ſurnamed the Great; ſet downe by *du Mathieu*, and thus briefly it is. In the warres betwixt the ſaid King, and the Duke of *Savoy*, for the recovery of the *Marquiſat* of *Saluces* uſurped long before that time, during the time of the *French* diviſions by the ſaid Dukes, and now reclamed by this King, as having bin formerly rent from his Crowne, although it lyeth in a manner within the *Savoyards* boſome: it fell out ſo, at the taking in of a little Towne there, that *Crekie* did vant to have got in that conflict * *Don Philippin*'s skarfe: which words being conveighed to his eares, he forthwith challenged *Crekie* of a lye; and that ſo much the rather; for that at certaine other ſwaggerings, where *Philippin* his fortune was to be before this fatall fight; *Crekie* likewiſe

The quarrell, a Commander on the Kings ſide.

* A principall man in the Dukes party, and brother to him.

The challenge

wife, had vented and vaunted, that hee had dipt his hand in the *Savoyards* bloud; which wrongs (at leaſt ſo pretended by him) accumulated together, drove him (if the *French* Hiſtory ſay right, for *Fides ſit penes Authorem*) to undertake the challenge, yet not without the valorous Duke his brothers threatning inſtigation: the time, place, weapons, judges, and all, agreed upon, they fought couragiouſly both: but yet ſo, that the *French* having the advantage of the Sun, which even then was tending towards the Weſt, by good fortune, and it may be by the equity of the challenge (for *Perkins* holds Duels not to be *examens* of innocency) left the *Savoiard* dead upon the field:

The combat.

Compariſon of the *French* and *Spaniard*, *Venetian* and *Florentine*.

The *Spaniſh* duell was more remarkable in its circumſtance, howbeit inferiour in the dignity of the combatants, and in the event of their fight; for although it be proverbially ſpoken, that the *French* in ſingle combat or duell, are better than the *Spaniard*, and the *Spaniard* in battels and greater numbers doe ſurpaſſe the *French*: even ſo in *Italy* I have oftentimes heard, that the *Florentine* alone is more wiſe, and ſubtle than the *Venetians*: but they againe in counſell are more wiſe and deliberate than the *Florentines*. In this combate the *Spaniards* gave very ſound proofes both of their courage and daring. The diſcourſe of it is at length, and in its punctuall circumſtances ſet downe in their Countrey ſtory, which I will briefly touch.

A duel betwixt two *Spaniards* granted by the authority, and fought in the preſence of the Emperour *Charles* the 5.

In the dayes of *Charles* the 5. that fortunate Prince, for the time both Emperour and King of *Spaine*, there lived in his Court *Peter Torello*, & *Hierome Anca Arragonois*, both Gentlemen of note (for ſo they were called) and withall entire and loving Comerades: theſe

two

two on some occasion falling to contradictory termes, from words they fell so foule, that it came to a challenge, from challenge to a meeting, from that to fighting; in which combate, after some bouts, *Peter Torello* was overthrowne by the default of his Rapier, which either broke, or else was beaten out of the hilt by his Antagonists furious blowes; by whom he was forced instantly either to dye, or sue for life; who being put to that *extremity*, condescended to accept of his life; but conditionally, that on the faith of a Gentleman, hee should reveale that secret to none living, which he might doe the more trustily, seeing no other were witnesses to it, but more especially seeing it was not through lack of courage on his part, nor of daring, but rather by chance of warre. Things thus put up, they returne to Court, living together after their old fraternity, as if never such a thing had beene amongst them, never so much as a motion or whispering of it; till within a certaine space of time a report of *Torello* his overthrow burst out, which comming to his eare after it had beene blazed through the whole Court, he pondered with himselfe, that hee could not be avenged on his companions perfidiousnesse by a private duell againe, whom hee perswaded himselfe was the onely revealer of his disgrace and that secret; (notwithstanding *Hierome Anca* certainly affirmed the discovery therof to be by a Neat-heard, who unknowne of them overheard and saw them) *Torello* therefore being set on revenge to repaire his disgrace, which he beleeved was whispered and talked of by every one, had recourse to the Emperour, and begged at his Majesties hands, that it might please him

The occasion, and quarrell.

Occasion, moving the challenger to petition a publike combate.

him for the recovery of his reputation now in question, to grant him a publike combat with his enemy, who perfidiously against his plighted faith, had revealed the matter, whereof he made a particular rehearsall: whereunto the Emperour after many instant solicitations gave way, but with this restriction; that first, they should fight armed: next, that when hee should throw in betwixt them a golden rod, which at solemne times he bore in his hand, they should give over, and not fight to death, as in other combats: these conditions were accepted by both parties, the day and place appointed, where in the Emperours presence, and face of the whole Court, with great pompe and solemnity, the two combatants did appeare clothed; first, in their most sumptuous attire, and accompanied with their most honorable friends: from whence, after low and humble reverences done; first, to the Emperour, sitting there in his Chaire of state, next, to the Chancelor (whom the Story highly regardeth) they were conveighed every one to their own pavilion at the ends of the Carieer; from whence comming forth againe, armed at all peeces, and (as they say) *Cap a pe*, they re-entred the precinct of their appointed place; where after solemne oathes made, that no other quarrell brought them to that hazardous encounter, but the defence of their honour; they commenced that memorable duell to the admiration of their beholders, with uncertaine victory; till in the end, the Emperour throwing his golden rod betwixt them, approving the courage and proofes of both, caused them to be parted, though without great difficulty they could not be separated.

Conditions granted by the Emperour whereupon they should fight.

Ceremonies observed in this combate.

The event of their fight.

Sect.

Sect. 3.

How Combats may bee thought permißible: The relation of a Combat betwixt Iarnacke and Chaßigneray, in the Preſence of King Henry the ſecond of France; citations of the Canon law againſt combats: Example of a Combat where the innocent was killed: that the deciſion of all ſuch queſtions whereupon Duells were permitted, ought to be left to God.

IN the former combats Spaniſh was more remarkable then the French; that firſt it was authorized by an Emperour and then countenanced by him. Wherin if any would inferre, that by this I would ſeeme to authorize Duells; hereafter the contrary ſhall appeare: But thus much I may ſay; If any ſort of Duels ſhould be tolerated in a Common-wealth, I thinke that that which is performed after this manner (wherein as in his *Miles glorioſus*, *Plautus* ſpeakes, *Pes pedi, dextra dextræ, latus lateri opponitur*) it is more diſpenſable then otherwiſe to permit men to butcher one another; true valour, ſtrength, dexterity and courage being then put to the eſſay, although with the hazard of their lives, yet not with the infallible loſſe of any or both, as in other Combats.

What way combats permiſſible if they ſhould be at all ſuffered.

Theſe two examples I have brought in out of the French and Spaniſh Hiſtories, brieflier couched here then in their owne Countrey Regiſters, Where they are at length and in their ſmalleſt circumſtances ſet downe.

Now as here I allow of the Spaniſh ſort of Duells (if any way to be tolerated) ſo can I not but diſapprove the French King *Henry* the ſecond his admitting and permitting of a Duell, not betwixt two men of a privat eſtate, nor by themſelves in private, neither for any remarkable injury done, by one to another; but in the face and preſence of himſelfe and Court in their ſhirts, and ſo to inevitable death of either, or both, and for nothing but a leger or ſlight French quarrell, as a *demanti* betwixt two notable perſons, of two illuſtrious houſes, *Iarnak* and *Chaſtaigneray*; where the fortune of the fight favouring the weaker for the time, to wit *Iarnak*, ſent his adverſary, if not from the field to the grave, yet ſo ſore wounded, that within few dayes thereafter he dyed.

I might have alleadged moe of former ages, but that the neerer our owne dayes things fall out, they bring with them the greater credit to the preſent times.

Charles the fifth his example may bee thought to be tolerable: and though by the conſtitutions or rather permiſſions of ſome Princes, Duells have beene tolerated, as particularly when the notorioufneſſe of a fact (as of murther) can neither be proved by witneſſes, nor oathes of parties, and ſuch other legall wayes; which ſort of proofes the *Civilians* call a vulgar ſort of probation, as in the *Decretalls lib.2.queſt.5. cap. conſuluiſtis, & cap. De Monomachia,* is apparent. Nevertheleſſe, the civill lawes as well as the Canon, do abſolutly condemne them, becauſe ſay they, it is a fallacious proofe, the order of nature favouring commonly the ſtronger above the innocent. As in the *Decretalls*

The Canon Law gaine-ſaieth their permiſſion, and Why?

Decretalls cap. ſupra citato de purgatione vulgari, is manifeſt by a caſe propounded of two, who upon accuſations of theft, challenged each other to Combat, where the ſtronger having overthrowne the weaker, was found nevertheleſſe guilty; for the goods in queſtion were at laſt found in the Victors houſe.

Example where in a Duell the innocent was killed

To ſay here; What ſhall a Prince doe when hee is importuned by one for Iuſtice of ſuch or ſuch a man, for this or the like crimes; but to referre it to a Monomachy or Duell, ſeeing other proofes faile?

I anſwer, that by ſuch meanes both God and the King are tempted; for if God hath reſerved to himſelfe the diſcovery of what by all ſearching cannot be diſcovered, is not that an intolerable importunity, to pry or ſearch any farther in that, but that the Magiſtrate (all legall proofes being uſed) doe abſolve him, whom *ſecundum allegata & probata* hee findeth innocent, and refer to the all-ſeeing and all knowing God, the puniſhment of him who is guilty, ſeeing in his owne time he can by meanes unſearch'd by men, bring about a puniſhment on him, whom peradventure the civill Iudge hath abſolved: for otherwiſe it ſhould ſeeme, that we were ſuing after a miracle, by permitting a Combat for proofe, as was uſed in *Linonia* or *Lapland* in like caſes, as may bee ſeene in the aforeſaid Chapter *De probatione Vulgari* in the *Decretalls*: for there ſaith the *Canoniſt*; If any crime ſuch as that could not be proved, and that the accuſed or ſuſpected, cryed that he was innocent, and ſo ſtood forth in the avouching of his innocency, hee was forced for the more and farther proofe thereof, either bare footed to tread on hot yron, or elſe to waſh his hands in hot boyling water.

We ſhould rather referre to God the puniſhment of a miſdeed, which by no legall meanes can be cleared, rather then to a fight.

For notwithstanding all the circumspection of Iudges in prescribing equality of armes, and all the objections which can be thought on, either for prescribing equall quarters to both, or to save both from such treachery and circumvention; Yet can neither of these caveats be so punctually and judiciously set downe, but that the one part may be weaker than the other: neither yet have we assurance, that God will ever show his justice in such Combats; because it is written, *Thou shalt not tempt the Lord thy God.*

Sect. 4.

Severall objections for the tolleration of Duells and Combats confuted; Cajetans opinion of Duells wherein also the lawfulnesse of Battells is allowed.

David his fight with *Goliah* should not serve for example, and Why?

IF it be said here, that *David* did fight in single Duel with GOLIAH; That maketh not against us for that was done by the instinct of the HOLY Ghost: Neither are all the deeds of the Saints to be obtruded as exemplary for all men, to imitate; they are rather to bee admired than followed: for then *Abraham* his going to sacrifice his beloved and only Sonne *Isaac*, might be an instance too for imitation. But with *Demosthenes* we should live by Lawes not examples, albeit examples are more moving at some times then lawes.

Cardinall *Cajetan* his permission, where and how?

I find indeed, that Cardinall *Cajetan* admits them; but upon two considerations: first, when two Armies are

are ready for the ſhocke and yet where the moſt equitable part hath the feweſt forces, in that caſe ſaith he, the event of the battel may be referred to a Duell of one of both armies, for avoyding of greater bloudſhed; for in that caſe, *ſi bellum ſit licitum, quid ni & duellum?* Next when any private man accuſed of a crime whereof he is innocent, is nevertheleſſe borne downe by power of adverſe parties, if then by the Magiſtrates authority (to whom he complaineth) a Duell be offered, to decide the queſtion, in that caſe, hee admits theſe fights to bee permiſſible: for why (ſaith hee) if we may ſafely fight with a Rogue, who would rob us of our goods, why not with him who would doe ſo with our honour, it being alike to him, at leaſt the odds not being great, whether he dye by his adverſaries hand, or by the ſword of the Magiſtrat, it being a lot of chance experimented in the perſon of *Ionas*.

As all the *Canoniſts*, ſave *Cajetan* only, in the cauſes and caſes above-mentioned do diſallow Duells, ſo the *Civilians* approve them not; for in the *F. de gladiatoribus. L. Conſtant.* it is ſaid, that *Cruenta ſpectacula in otio civili non placent.* Then *Leo* and *Anthemius Titulo de Feriis. L. Dies feſtos* command, *ut lachrymoſa ſpectacula ferarum tollantur.* Now if ſuch *ſanguinolent* and bloudy ſhowes and baitings of Bores, Leopards, Bulls and Lions, either amongſt themſelves, or elſe of condemned perſons with them, yea and ſometimes of venturous fellowes to try their ſtrength and daringneſſe with them, were for theſe unnaturall fights prohibited, much more thinke I, ſhould theſe of men one with other bee abſolutely diſcharged.

Now

Solution of certaine Objections.

Now if it be objected here, that in the civill law, wee find the Emperours themſelves, to have promiſed immunity and impunity to the gladiators, who either had vanquiſhed their Commerad, or peradventure killed him in ſuch fights, as *ad Aquiliam. L. Quæ actione. §. Si quis,* is evident:

To that I anſwer, and not without the ſame Law.

That ſuch killing when it did happen amongſt theſe *Luctators* (which were men appointed to wreſtle and fight together for ſport to the people, who beheld them barter ſtrokes, and exchange blowes in the bottome of the *Amphitheatre* called *Arena,* whileſt they ſate in ſecurity) was not *injuriæ cauſâ,* or by any premeditated malice, but only by meere accident without the deliberation of him, *qui intulit damnum*; whereas in theſe combats or Duells, they flye to it on intention and reſolution, either to kill or to bee killed: and the intention judgeth our actions, not the events.

It is not a good conſequence, ſeeing I refuſe Duells, therefore Battells too.

Neither need I for this be reputed an *Anabaptiſt,* though I refute the lawfulneſſe of duells, by the aforeſaid reaſons; as though I therefore denied the lawfulneſſe of neceſſary Warres, becauſe they are founded upon ſome apparent grounds of Scripture, for out of the ſame we have many Warrants more inforcing beſides examples where the Lord of Hoſts hath ſhowne his power and approbation in favouring of battels undertaken for his cauſe.

No more is it a good conſequence, if wars and Battels be lawfull, therefore Combats are.

To ſay *ſi bellum ſit licitum, quidni & duellum?* if a War be lawfull, why not a Duell?

It followeth not, for howſoever *Majus* and *Minus* change not the ſpecies and kinds of things, as we ſay

in

in the Schooles, yet is there great discrepance betwixt the two; for battels are approved by the authoritie of God, nature and Nations; provided the causes bee lawfull and just, as *pro aris & focis*: for the other there are none at all; for *David* and *Golias*, their fight carry no example for imitation: But if any Nations have tollerated them, it hath beene but such,

Quos sol obliqua non nisi luce videt.

Not the Greeks, Latins, *Assyrians*, *Ægyptians* and the like.

Sect. 5.

Cajetans reason for referring the event of Battels to Monomachie: Where also is inserted the story of the Horatii and Curiatii.

AS for the first condition admitted by *Cajetan* for Duells; which is, when two armies are ready to joyne, for preventing of greater bloud-shed, he averreth that it is better to referre the event of a battell to a Monomachy of two, then otherwise to hazard all:

A Notable Combat of 3 Brethren Romans against so many *Albans*.

There is nothing more memorable in all the Roman Historie then the experience of this, in that notable not so much Monomachy as *Polymachy* of three brethren, Romans, called *Horatii*, against other three brethren of the *Alban* side called *Curiatii*, and those partly of kinne and alliance, to which the decision of the victory of either of the armies, by the Roman and

Alban

Alban Kings with their whole armies consent was concredited.

Their fight.

Those sixe in the middle of both Armies valourously fighting for their owne private lives and credit, their countreys fame and liberty, having so glorious a Theatre to act so important and tragicall a combat upon, did so bravely on both sides, that the panting armies were in no lesse anxiety for the event of their tryalls, then the perplexed combatants themselves: at length the victory, which seemed dubiously disposed in favours of either side begun to incline to the *Albans* first, and that by the death of two of the Roman brethren; whereupon the Roman Survaior counterfeits to fly, and so was pursued by the other three; but turning to the formost of his pursuers he set so furiously upon him that hee forthwith killed him; then turning to the second with like fury rewarded him after the same manner: Now the Survaiour of the *Curiatii* being brother in Law to this victorious Roman, received the same lot that his brothers had from his valorous hands, which afterwards caused the death of his owne Sister, the last killed *Albans* Spouse, as in the Roman Historie may be read at large.

Section

Section 6.

That Kings and Generals of Armies, for saving of the greater bloudshed of their Souldiers, have fought single for victories. Examples of both. A quarrell and challenge betwixt the Emperour Charles the fifth, and Francis the first, King of France: how it tooke no effect.

WHEN I say then, that neither the *Greeks* nor *Romans* admitted single combats, it must bee understood, except in time of just warres, in which either one or moe souldiers may single out a combate with one of the adverse party, with permission of the Generall, or else one Generall with another for saving the bloud-shed of many; as *Cassius* and *Marcellus* did each of them fight with their adverse Generals: yea, and sometimes Kings one against another have done so for sparing the bloud of their subjects; As *Alexander* the great did combate single with *Porus* King of the *Indians*, *Godfrey* of *Bovillon*, against *Arnold* King of the *Saxons*; *Romulus*, with one of the Kings of *Latium*; and *Hundick* King of *Saxony*, with a King of *Denmarke*; and of fresher memory, *Charles* of *Anjou* challenged *Peter* of *Arragon*, to duell; where at *Burdeaux* in *Aquitany*, before the Prince of *Wales*, for the time, with swords, they should have tried the right and claime that they both pretended to the Crowne of *Naples*, but they met not just on the day and place appointed; whose default it was, their diverse

Some *Grecian*, *Roman*, *Hunnish*, *Danish* Kings have combated with others for saving much bloud.

Challenge, but no meeting nor fight, betwixt the Prince of *Aragon*, and *Charles* of *Anjou*.

verſe Hiſtories agree not: like as the Hiſtories of *France* and *Spaine* diſſent upon the challenge given in a manner, and accepted by *Charles* the 5th. Emperour for the time, and King of *Spaine*, with *Francis* the firſt of that name, King of *France:* albeit *Guicchardin* neutrall to both; and reputed as another *Cornelius Tacitus* for his impartiality in his Hiſtory of *Italy*, following forth the circumſtances of the battell at *Pavie* ſheweth at length, how the *French* King *Francis* was beaten there, and taken priſoner by the Viceroy of *Naples*, Generall of the Imperiall forces, from whence by ſea he was conveighed into *Spaine*: and how after a long and ſtrait impriſonment, he was put to ſo high and invaluable ranſome as lightly hath not beene heard of: moreover, the quitting of the beſt branch of the patrimony of his Crowne, the rites, titles and intereſts he pretended to the Kingdome of *Naples*, the Dutchy of *Milan*, for the which then they had beene a ſwaggering; His rights and ſoveraignties of *Artois*, *Brabant*, *Hainault*, and ſo forth: yea, to the mariage of *Eleonora* Widow of the King of *Portugall* and ſiſter to the ſaid Emperour, a ranſome which he was as unwilling to pay as agree to any of the former Articles, her favour being as it was unfavourable to him, who otherwiſe was an amorous Prince; and although the diſtreſſed King ſubſcribed to all, and confirmed the Articles with his promiſe, yet it was ſo, that often he proteſted even there (neither did he ſmother it) that promiſe what he would, performe them he could not, neither legally might he. So that being ſet at liberty, his two ſonnes accepted in hoſtage for him, and returned home; he was charged by the Emperour for

Challenge, betwixt *Charles* the 5. and the *French* King, *Francis.*

the

the performance of the points ſubſcribed by him: whereto he anſwered, That it was not in his power, no more than in any other Kings to alienate things belonging to the Crowne, without the conſent of his whole States obtained thereunto. And for his promiſes he ſaid, That ſeeing extraordinary conditions had extorted them from a Prince in cloſe priſon, and his conſent to them violently wrung from him, they muſt conſequently be infirme, for promiſes acceſſory to ſuch like compulſions cannot be of better force and value. Which with the like and better replyes, when they came to the Emperours eares, he forthwith challenged the King by his Heraulds of breach of faith, and offered in ſingle combate to fight with him in the quarrell, which the *French* king accepting, deſired him to appoint day and place, giving him the lye as often as he would ſay, that he had falſified his promiſe. But as their ſeverall ſtories diſagree upon the particulars, ſo every one doth vindicate their owne Prince, from all aſperſion and ſtaine of breach.

The occaſion of the quarrell.

Sect.

Section 7.

A discourse of a combate where thirteene French Knights fought against so many Italians: wherein the French were overcome; some observations thereupon.

Combate of 13 *French* knights against so many *Italians.*

THE *Italian* and *French* Histories agree not upon the verity of that, not so much monomachy as polymachy of thirteene *French* Cavalliers against so many *Italian.* And because it is counted as a very memorable thing in their History, I shall the briefliest I may, touch it, to give the Reader content.

The quarrell and challenge.

At *Barletta* in the kingdome of *Naples* where the *French* and *Spanish* forces lay debating by sword, the right that either King clamed to that Crowne; by their Generals for the time, *Lantrek* the *French*, and *Consalvo Ferrandes*, the *Spaniard*: it fell out so, that at *Kubos* a Village of no great importance, a *French* troope had got the foile by an *Italian* one, for the time, under the pay of the *Spaniard*; of which severall Companies, certaine souldiers by hazard ranne encountring together by their contumelious and reproachfull objecting of one anothers defects: the *Italians* to the *French* their vaine-glorious brags, and that in effect their courage was not so good. The *French* to them, their subdolous and crafty tricks by which they fight more fortunately than stoutly. They brought the matter to such a height, that thirteene of the one side were to fight on Horseback

against

againſt thirteene of the other, the field to bee Career rayled about on the ſide, but not at the two paſſages, in the middle of both Armies; the quarrell was for the maintenance of the honour of their countreys; and it was agreed upon, that the victors ſhould not only have a certaine ſumme of Gold, but the ranſome alſo of their captiv'd Priſoners.

The conditions agreed upon.

As ſoone as they had covenanted, they met, they fight; the French are beaten, ſome killed, others taken.

Which notable overthrow albeit *Guicchardine lib.* 5. of his Hiſtory of Italy attributeth abſolutely to the valour of his country-men above the French; and penneth it in all circumſtances with the exhortatory Orations of their Generalls before the fight and the triumphs after: yet the French in their bookes, and with them *Sabellicus* alſo an *Italian. lib.* 2. *Ænead. XI.* imputeth it rather to the couſening ſubtilties of the *Italians* then otherwiſe, to their ſole courage, becauſe (ſay they) and *Sabellicus* with them, it was condeſcended upon, that if any horſe-man that ſallied ſhould tranſgreſſe the precinct of the Career through error or un-skilfulnes, that he ſhold be held as dead, neither thereafter ſhould be admitted to reenter the liſt to help his fellowes; by which meanes the Italians knowing the eagernes, heat, and impatiency of the French, did plant themſelves within the centre of the camp, without budging, and attend the French charge from a little diſtance within the limit of the Career; where wiſely if they had remained as they were placed, and not precipitated the charge, they had apparantly woon that field.

The French then whoſe charge is ever furious, and then more than ever, let looſe ſo fiercely upon them, that five of their ſide and but two *Italians* tranſgreſſed the bounds; who not being able to wheele and raine about their Horſes againe, by that meanes loſt the victorie, in the ſight of the panting and votary Armies.

Now albeit in this ſo conſpicuous and ominous combat the French were beaten, nevertheleſſe we find commonly, that one for one the French ſurpaſſe the Spaniard, although in companies they ſurmount them; and in this ſame fight although the French had the worſe, yet by all likelihood, if their Horſes had not proved their loſſe, they ſhould have borne away that dayes credit.

Obſervation upon this combat.

Alwayes as in this heat of an impatient nature, wee communicate with the French, and it may bee in our ſingle combats too;

So our neighbours the worthy Engliſh may juſtly bee ſaid to participate with the long patience, mature and ripe deliberatnes of the *Italian* and *Spaniard:* conſequently more capable to maintaine and keepe well, than with the other to conquer and ſuddenly to ſubdue.

Section

Sect. 8.

A memorable Polymachie betwixt two kindreds in the High-lands of Scotland (betwixt whom there had beene a long and mortall enmity) for the totall extirpation of the one of them; fought before King Robert the second, at Perth in Scotland.

A memorable combat betwixt two powerfull *Clans* & parties of our own nation debated of *Perth*.

I Were ingrateful to my country to passe here with silence, that true Polymachy, recorded of in our Histories, registred there to posterity, as a thing memorable, which befell in the dayes and under the Reigne of King Robert the second, if I rightly remember.

This brave Prince being often molested with the mutuall complaints of two powerfull Clans or Surnames in the High-lands where his Majesties judiciall power could but hardly and with many incumbrances execute his authority upon the parties offenders on both sides.

After their mutuall supplications given in, that they might at one time both rid his Majesty of molestation, themselves and their successors of the perpetuall feare wherein they dayly were, for their Wives, children, goods, and Cattell; by one open fight, where all of either of these names should be on both sides.

The King giving way to their Petition, the day and place was appointed, it fell out so, that there were one fewer on the one side than on the

other; where the generosity of the party having the advantage of the supernumerary man, did appeare in so farre that they refused to fight with the advantage of one more, neither yet could any of them be induced to lye by to make them equall, all being desirous to bee equall sharers of the common fortune: which controversie a Saddler of the City of *Perth* where the Combat was fought perceiving; least the King, Court and Country which were met (to see so famous a spectacle) should be disappointed, did offer for pay to make up the odde man, and was observed by all to doe so well for his owne hand, that when all the rest were either killed in the field, or else with terrible and deadly wounds left so (it being one of the most bloudy butcheries of so many as is seldome read of) he alone or else with few moe escaped, and that by swimming the River of *Tey*. Howsoever France in the dayes of KING *Henry* the third and fourth, was so overspread with the bloud of Gentlemen killed in Duells, which amounted to such a number (notwithstanding all the Kings edicts to the contrary) that almost they could have made up an army, and that Duells came to such a height, that none was reputed a brave fellow except he had killed a man as they said: Yet finde I none so remarkable as that combat betwixt the Duke of Savoy his bastard brother and the Chevalier *Creky*, the time of the Wars betwixt King *Henry* the 4th. and the said Duke, for the Marquissate of *Saluces*, of which before.

The conditions accepted and agreed upon.

Section.

Section 9.

A Combat appointed by two French Barons, the one of Gaſconie, the other of Poictou, which was taken up of their own accord in the field: The end of this Title.

NOw to end this diſcourſe: *Exemplum alios fortaſſe nepotes inſtruet.*

In my time I remember at the Court of France an ancient *Gaſcon* Baron and a *Poictouvin* a man of his owne coate, but younger, falling to contradictory termes for a naughty matter, becauſe in the Kings houſe they durſt not put hand to their ſwords, did agree to meet elſewhere: time place and armes are deſigned; the *Gaſcon* that ſame morning betimes calling on his page, commands him to provide a bottle of Wine and to have it in readineſſe at the place appointed, before hee came: where he himſelfe following and preſently eſpying his adverſary, both being demounted, and in their ſhirts, before they began to lye at their guard, in theſe or the like termes the Elder beſpake the younger.

That I as the Elder doe take upon me to ſpeake firſt, impute it not to any preſumption I have of my worth, but to the priority of my yeares. Wee reade in the Roman Hiſtory, that two of their Conſulls who before had bin at mortall enmity and variance, going together with their Armies againſt the enemy, being a pretty way from the City, the elder ſhould ſay to the younger, Camerad, ſeeing we goe together on a publike

An Exemplary Combat betwixt two French Barons.

like charge, in conjunct offices, let us lay downe all former grudges under this ſtone, now if thou pleaſe, at our returne, lift thou it up againe and reaſſume them : you may adviſe ; but for the preſent I thinke this beſt, which was agreed unto to the great contentment of the younger.

So ſay I to thee, if it pleaſe thee for ſo petty and frivolous a quarrell, that wee expoſe our lives and eſtates to the hazard of a doubtfull fight and of a variable fortune, I will not decline it : For as none doubteth of your courage ; So I truſt, that none dare call mine in queſtion; ſo then if you liſt Cavalier, with the worthy Roman, let us bury in this Boule of wine our yeſternights raſh words: ſo we ſhal procure *Gods* bleſſing upon our ſoules and bodies, and our Prince his favour by our good examples to his quarrelling courtiers ; and withall indiſſolubly tye our loves together for ever, without any diſparagement of our credit or reputation ; which being accepted by the younger, and related to the King, they were by him in preſence of the whole Court condignely prayſed, as moſt duely they deſerved.

Now albeit it be not of thoſe or the like voluntary duels I treat of here, but of theſe which are tolerated by permiſſion of the Prince or Magiſtrate for the eſchewing of murther & greater bloud-ſhed in the common-wealth, upon apparent conjectures of wrongs received, yet I thought it not altogether impertinent to inſert this ſtory. Now for the other. Although ſome have permitted them, as of old *Fraton* King of *Denmarke*, and are yet tolerated in *Muſcovia :* yet we finde that *Rhotaris* King of *Lombardy*, abſolutely diſ-

charged

chargeth them: and although his ſucceſſor for the inconvenience which thereafter enſued licenſed them againe, yet hee proteſted that it was againſt his will and conſcience: and as theſe good Kings inhibited them; ſo, many of the French Kings, as *Philip le bel*, *Lewis* the 9th. *Charles* the 9th. King *Henries* 3d. and 4th. and many moe of the beſt governed Common-wealths have done the like. Which maketh mee admire why *Bodin* in his 7. Chapter of his 4. Booke of *Republick*, giveth way to their toleration; they being both repugnant to the Law of God, and contrary to the Civill and Canon Lawes, and the conſtitutions of beſt governed Kingdomes. Indeed, the ſaid *Bodin*, admits them onely to be permiſſible, when legall proofes are wanting, provided, that they be only for matter of honor, not wealth; and conſequently among perſons honourable, for the preventing of further bloud-ſhed, averting of kinsfolkes murthers, and ſuch like evils wch might enſue: to which if he had ſubjoyned *Charles* the 5th. his condition of fighting armed, I thinke his reaſons might have beene more paſſable.

But however in elder times, duels were tolerated by certaine Kings, which by appearance, the neceſſity of thoſe times required; as common Stewes were for eſchewing of greater inconveniencies; yet they being practiſes ſo ill-grounded, ſo unnaturall, and ſo farre both againſt the Lawes of God, and Man; Succeeding Kings (in every Nation almoſt) have enacted moſt ſtrict Lawes againſt them, with moſt exemplary puniſhments, to be executed on the raſh infringers of them: all which, being well knowne every where, were ſuperfluous to be inſerted in this ſmall Treatiſe.

A TREATISE OF DEATH,

And of diverſe Orders and Ceremonies of Burials.

Section 1.

The remembrance of death requiſite in all men: Ceremonies for the remembrance of it; ſome documents againſt the feare of it: what death Iulius Cæſar *wiſhed: of Autocides: of ſelfe-murtherers*, &c.

THERE is nothing whereof a Chriſtian ſhould be more mindefull than of death. The *Ethnickes* that wanted the true conſolation which a beleeving and faithfull Chriſtian hath, had nothing more frequent in their mouthes than Death: The Poets are full of theſe paſſages.

Vivt

Vive memor, quàm ſis ævi brevis--.
Naſcentes morimur, mors rediviva brevis.

Eſpecially *Horace*, with *Tibullus, Catullus, Propertius, Seneca Tragœdus, Perſius, Iuvenall, Claudian, Ovid, Lucianus*, and the reſt; whereof to make mention, were to fill up a little Volume: there is nothing almoſt under the heavens but may ſerve man as a memoriall thereof; the Sunne ſetteth at evening, the day giveth place to the night; Summer, to Winter; infancy to childhood; that to youth, it to man-hood; this againe to decrepit old age: whence it may be inferred, that the beſt fruits we can reap of all our ſtudies, yea, chiefly of Philoſophy, are to prepare us for this death: neither almoſt to any other end tend all their documents, than to live w^th^ pleaſure in reaſon here, & then to dye in patience, no wayes diſmaid at the approach of death, becauſe of its inevitableneſſe, of our our obedience to the Law of Nature, of the examples of al Ages, ſexes and conditions of men to this houre, who have gone before us: ſo that the principall aime of vertue whereof they made ſuch account, was to induce & prepare all that have beene, are, or ſhall ſucceed, to a patient acceptance, or rather a contempt of it, that we might paſſe our lives more peaceably here; which otherwiſe by the perpetuall feare of it, would be a never-dying life.

All things we ſee ſerves to refreſh our memories of death and mortality.

The documents of all the old Philoſophers tendeth to this chiefly, not to feare death.

For this cauſe, it ſhould ſeeme, the Ancients, did inſtitute Graves, Monuments, and Tombes, to be either in the Churches, or Church-yards adjoyning thereunto, as in the moſt conſpicuous and uſuall places where the living frequented moſt. I cannot but wonder, that what the Philoſophers thought fit continually

Burials and tombs in moſt conſpicuous places erected for that cauſe.

tinually to bee thought on, *Iulius Cæſar* ſhould wiſh to come upon him ſuddenly and at unawares. Hiſtories relate, that while ſome Philoſophers were reaſoning before him, What ſort of death was beſt; ſome alledging one kinde, and ſome another; He maintained that a ſudden and unfore-ſeene death, was the beſt: for howſoever unto a man of his high eſtate and profeſſion, it might ſeeme a word diſpenſable; yet to a Chriſtian who is learned to ſay, *A morte ſubita & improviſa libera me Domine*, it cannot ſo well be allowed: who as he ſhould not wiſh a death unforeſeene, neither yet be unprepared at the ſudden aproach of it; ſo ſhould he not by any meanes either accelerate or wiſh it, thereby to bee rid out of any incomberances that may befall.

Iulius Cæſar, his death which hee wiſhed, not to be allowed of by a Chriſtian.

Nec metuit mortem bene conſcia vita---
Nec optat---

For as Saint *Auguſtine* reaſons well againſt ſuch Autocides and ſelfe murtherers, it is rather a token of puſillanimity and lacke of courage in them, than otherwayes a marke of true reſolution to doe ſo; ſeeing they had not the daring to abide the dint of adverſities which threatned them.

S. *Auguſtine* reputeth it a token rather of puſillanimity to put hand on our ſelves, than of courage.

Let us all remember to implore in our daily prayers, our Makers aſſiſtance from above, to aide us in that laſt houre: for my owne part, I thinke it one of the beſt fruits of my ſtudies or travels, to be ever arming my ſelfe againſt it: and as in my morning and evening prayers I call for peace of conſcience, in the aſſurance of my reconciliation with my God; and for peace on Earth, for his bleſſing upon my children, his favour upon my King and Countrey: ſo more ſpeci-

My uſuall prayer.

ally

ally for the favourable assistance of the Holy Ghost the comforter to assist me then; that neither the terror of a present death may affright me, nor my trust and confidence breed in mee presumption, nor my feare, despaire; but there being a sweet harmony betwixt my soule and my God, I may lay downe my life, in hope to re-assume it againe for ever.

Section 2.

That Christians ought not to feare death, as the Ethnicks *did. All things, save man, keepe their constant course. The uncertainty of mans life.*

The Ancients for all their good injunctions, yet feared it.

IT is true, that the consideration of death, which of all terrible things is most terrible, as being the partition of the soule and body, and so the destruction of this structure, was the cause, why divers of the Ancients fearing almost even to name it, were wont to say in stead of (he is dead) he sleepes, he hath left off to be; hee is gone downe to the lower parts of the earth,

---hunc ferreus urget
Somnus, in æternam clauduntur lumina noctem.

Or *desiit esse*, or *transiit ad manes*, and so forth; thẽ reason being, that few or none of them had the full knowledge, much lesse the assurance of the enjoying these pleasures after this life past, which we Christians being taught at a better schoole, have: wherefore as well learned disciples of so worthy a master; let us learne

learne not only to name it, but ſtedfaſtly to abide the approch, the frowne and dint of it.

In me ſi lapſus labatur orbis---
---impavidum ferient ruinæ.

Not to be afraid of death, and why?

Remembring our ſelves, that howſoever ſoule and body be ſevered for a ſeaſon, and that the body lye companion with them that ſleep in the duſt; yet that they ſhal conjoyne againe in the glorious reſurrection to poſſeſſe thoſe joyes unknowne to many of the Ancients, which our Lord and Maſter hath purchaſed to us by his death: remembring that howſoever wee ſhould live to the fulneſſe of yeares, that wee ſhall ſee no more, even unto the laſt date of our dayes, than a boy of ten or fifteene yeeres: For the ſeaſons of the Yeare, the Dayes, and Nights, the Seas, Sun, Moone, and Starres, Plants, Herbes, yea, Beaſts themſelves, *&c.* keepe a conſtant courſe, which in a perpetuall revolution were ſet: and if ſo be that in theſe any change be, then bee ſure it is a foretoken of Gods kindled wrath againſt us. For the Heathen Aſtronomer, when the Sunne did eclipſe at the time of our Lords paſſion, could well ſay, That either the God of Nature was ſuffering, or elſe the frame of the world was to diſſolve, the eye of all things ſuffering ſuch a deliquie: now if the elder ſee any thing other than the younger, be ſure it is not in the nature and courſe of things above ſpoken, which in perpetuall revolution do obſerve the courſe preſcribed unto them by their Maker: But in the perſons of men, which pointeth out unto us the frailty of their eſtates; and even of them alſo (if we remarke well) we ſhall finde more who have died within thirty or thirty five yeeres of Age, than

All things except man keepe their conſtant courſe.

If change be in things, a token of Gods wrath.

paſt

past it: But death being the common subject of our preachers especially in their funerall Sermons, I passe it over as their peculiar Theme, and according to my first purpose doe hasten to the divers sorts of Burialls.

Sect. 3.

In what reverence the interring of the dead was amongst the Ancients; Of Alexander; Of Sylla: How the People of Vraba did use their dead; Customes of Finland, Lapland, Greece and other places, concerning burialls.

The Antiquity of interring the dead.

AND first for the Antiquity of interring of the dead, as Writers doe abound in their testimonyes, that even amongst enemies in the hottest of their hostility and Wars, Truces were granted for burying of the dead; so particularly in the Word of God we have warrant out of the *Macchabees*, that although there were not positive lawes of Nations and Countries for this effect, Nature seemes to have ingraued it in the hearts of all; thus *Palinurus* case in *Virgill* is regrated, that he wanted the honour of buriall, for having made ship-wracke; thus the Poet deploreth his losse.

Heu nimium Cœlo & Pelago confise sereno,
Nudus in ignota Palinure jacebis arena.

The Old Roman Emperors respect had thereunto.

What reverence and regard the Roman Emperors have had unto it in their lawes and statutes in *Iustini-*

ans

ans workes may be ſeene plentifully, and eſpecially in one Title expreſſed by it ſelfe, *De non violando Sepulchro.*

Alexander the great having diſcovered *Achilles* Tombe in Greece overgrowne with brambles and briers, ſo honoured it, that being crowned with a Garland of Lawrell and Cyprus, he carowſed ſo many full bowles of Wine to his memory, untill he had almoſt loſt his owne.

Alexander of *Macedon* daunced about *Achilles* tombe.

So did *Tullius Cicero* for the time Queſtor, ſend into *Cicilie* to readorne *Archimedes* Tombe, it being almoſt obſcured with thornes and brambles.

Contrariwiſe to this, *Sylla* his cruelty and inhumane barbarity againſt the dead bodyes of his enemys, is yet regiſtred in the records of his Country; for that he (to be avenged upon his enemies being dead, whom alive he could not come at) cauſed to diſinterr the halfe putrified carcaſes whereon he trampled with his Horſes; and being Iealous of being ſo ſerved after his death, ordained his body to bee caſt into *Tyber*, and cauſed to divert the Rivers courſe, ſo to diſappoint all who ſhould ſearch after it.

Sylla his cruelty againſt burialls remarked in Hiſtories.

The like I find done by a certaine Pope, who cauſed to carry about with him the Corps of ſome Cardinalls in *Sheletons*, upon Mules ever before him, to be avenged of them, for that either they had croſſed his election, or had conſpired againſt him; whereupon the Author,

Septem prælati Papa iubente prælati, &c.

Even the moſt barbarous Nations, who otherwayes wanted all ſort of humanity and civility, have had reſpect to this. For I finde in *Peter Martyrs* decads

The memory they carry to the dead, in *Vraba*, and the way how they use the Corps.

cads touching the Historie of the West Indies in *Vraba* and other parts thereabout, how they doe dry (as we doe fishes) the bodyes of their dead, which thereafter they hang up round about the Walls of their inner roomes, adorning their heads, shoulders, and upper lips with Gold and Pearle: And *Ortelius* in his Cosmographie, speaking of Find-land, or Lapland, (which he calls *Livonia*) where there is no Religion almost at all, (because after the manner of the Heathen they worshipp the Sunne, Moone and Serpents, *&c.*) I find (I say) that when any one of great esteeme dieth, his friends sit round about his corps laid on the earth, but not yet covered with any mould, and make good cheere, and drinke to his farewell; and putting the Cuppes in his hand, as if he could pledge them, they quaffe about a long time; in end, they lay him in the grave with store of meate, and drinke by him, and put a peece of money in his mouth, and a sharpe Pole-axe fast by him: then they shout aloud in his eares, and give him in Commission, that when he shall come to the other world whither they had victualled him, and given him mony to defray his charges, that he faile not whensoever he meete with any Dutch man, to correct him, as well as they had thralled him and theirs in this world: which custome (but after a more solemne manner and sumptuous.) they of *China*, *Cathay*, and *Tartarie* keepe almost in all points.

The manner of burialls observed in Find-land and Lapland.

The like wherof that same Author observeth done in *Terneſſare* a Citie of the East Indies, but not to a like enemy: In Greece, yet (as of old) at least in such parts of it as are under the Turkish Empyre; whensoever

ſoever any remarkable perſon dieth, all the women thereabouts after their old heathen cuſtome, meete together about the houſe of the deceaſed and there chooſing the lowdeſt and ſhrilleſt voices to beginne, betimes in the morning they make lamentable howlings and cryes; weeping and tearing the haire from their heads, beating their teats and breaſts, with their nailes, defacing their cheekes and faces, they conduct him to his grave ſinging by the way his praiſes, and recounting what memorable things he had done in his life. Which cuſtome *Aëtius* an ancient Hiſtorian of our Country obſerveth to have beene uſed of Old amongſt our Britiſh, and yet in our Highlands is obſerved: The Poets in their *Luctus & neniæ* make mention of this and the like, as *Ovid, Horace, Iuvenall, Catullus, Tibullus, Propertius*; amongſt the Greekes, *Sophocles, Muſæus, Ariſtophanes, Phocyllides* and the reſt; whereof *Ennius*, ſpeaking of himſelfe.

That ſame ſort obſerved of old in this ſame Country, and yet in certaine parts of our Highlands.

Nemo me lachrymis decoret, nec funera fletu
Faxit, Cur? volito vivus per ora virum.

M Section.

Sect. 4.

Other ſeverall Cuſtomes of interring the Dead amongſt Ægyptians, Romans, and Indians; that the manner of Chriſtian Interrements are preferreable to all other.

The Ægyptian burials and their Momies moſt remarkable.

NOw what hath beene the Curioſity of the *Ægyptians* for the keeping of their dead, their Momies can teſtifie, where the whole and intyre bodyes of ſome of their Princes and great men were to bee ſeene of late, who died many thouſand yeares agoe; whereof who pleaſeth to reade may conſult *Diodorus Siculus*, *Ammianus Marcellinus*, *Strabo*, *Herodotus* and others: the *Athenians*, and after their example the *Salaminians* (ſaith *Sabellicus. lib.* 5. *Æneid.* 2.) uſed to interre their dead with their faces turned to the Sunne ſetting, not to the riſing, with the *Megarians*; and apparently *Catullus* was of their opinion when he ſaid, *Nobis cùm ſemel occidit brevis lux, nox perpetua una dormienda eſt.*

Two ſorts of interring the dead moſt remarkable.

But of the ſeverall faſhions of burying the dead I finde two moſt remarkable; the one of ſome Greeks and Romans, and not uſed but by thoſe of the better ſort, which was in burning the Corps of the deceaſed after this manner; There was either an Eagle or ſome other great fowle tyed unto the top of the Pyramide of Wood wherein the dead body lay; This Pyramide being kindled by ſome of the moſt intire friends of

The Romans burned & conſumed theirs to aſhes.

the

the deceaſed, amongſt the cloud of ſmoke the Fowle being untyed which was tyed before, was ſeene to flutter and flye away, which by the Spectators was taken to be the ſoule of the deceaſed flying to Heaven; the Aſhes then of this burnt body they collected and kept in an Vrne, and of this the Poets almoſt every where make mention.

The other was the Indians in eating the dead bodyes of their Parents, and friends, as they did in ire to thoſe of their foes, thinking that they could give them no more honorable Sepulchre, abhorring the others burning into aſhes as a thing unnaturall; which might well be ſeene at the time that *Alexander* had conquered them; for he willed both Greekes and Indians to doe alike, but they upon no condition would condiſcend to that, the power of cuſtome being ſo ſtrong, as it was impoſſible for any Novations (though never ſo good) to alter it.

The Indians againe did eat their dead as thinking their bellies a honorable ſepulchre for them.

Amongſt al faſhions above rehearſed, I think that of our Chriſtian interments to be moſt conſonant to nature, ſeeing of earth we are, and that to it we muſt returne againe: As for the Greekes howling, weeping, renting their cloathes, haire, and faces, it ſeemeth that Saint *Auguſtine* in his worke *De cura pro mortuis habenda*, aymed at them; for in that whole worke, I perceave nothing that maketh much for praying for them, but chiefly he willeth all men to moderate extraordinary Griefes mournings and howlings for them, ſeeing they reſt from their labours; and his concluſion is good, that if prayers for the dead be not meritorious for them, yet at leaſt that they are ſome way comfortable for the living; *Si non ſubſidia mor-*

tuorum (saith hee) *tamen solatia sunt viventium*: Indeede I will not deny but that Father and others also in their writings allow prayer for the dead; as *Peter Martyr*, *Vermillius* also in his *loco. 9. lib. 3.* in the Title *De Purgatorio*, denyeth it not, but onely he refuseth such prayers to have beene subsidiary or helpfull to them, but rather congratulatorie, for that they were released from all their miseries; which he instanceth by the funerall Oration of Saint *Ambrose* upon the deaths of the Emperors, *Theodosius* and *Valentinian*, where there is no mention of praying for their soules to ease or shorten their paines in Purgatory.

Section 5.

That the Church of Rome reapeth great commodity by their funerall ceremonies, as by their bells, Cymballs, Torches, processions of order and the rest: silent obsequies condemned: a story of a woman whose Ghost haunted her Husband and family after her death; and the cause thereof.

NOw for all this, as there is nothing whereby the Church of Rome reapes more commodity then by their prayers for the dead; for it is called, the Friers kitchen; So it is, there is nothing wherein their pompous solemnities and their devotion appeareth more than in their accompanying their dead to the grave, with the sound of Bells and Cymballs, Tapers, Torches, prayers, musicke, Church Ornaments,

Ornaments, ſolemne proceſſions of the fraternities, and not without contention of precedence of orders: all which ceremonyes as they bred a kinde of pious compaſſion in the beholders, So it begetteth a manner of content to their eyes and eares; But our ſilent and dumbe obſequies, as wanting Bells and other noyſe, doth not ſo take the Spectators and ſuch as accompany them.

The dumbe & ſilent obſequies of our burialls condemned.

Now I will cloſe this Title with one obſervation which the Poets remarke; who affirme that the ſpirits and Manes of them who want their due burialls, wander here and there in Ghoſtly apparitions untill their bones be interred.

Nec ripas datur horrendas, aut nigra fluenta
Tranſportare prius, quàm ſedibus oſſa quierunt.

For the puniſhment of the neglect of it may appeare in one of our Northern Countries, cald *Lawder*; who on her death-bed had enjoyned her husband to bury her in the Church-yard, which if hee did not, ſhee threatned that her Ghoſt would haunt him after her death: but the plague then raging in thoſe parts, and he fearing that if ſhe were publikely buried, that all would have ſuſpected her to have died of the plague, whereupon every one would have deſerted him, and ſo leſt hee ſhould bee left ſuccourleſſe, he reſolved to conceale her death, and buried her in a corner of his Garden; but thereafter, this womans ghoſt, I ſay, did ſo inceſſantly both haunt and affright, both him, his children, and family, that there was no reſting for them at any time; till by the adviſe of the Clergy ſhe was taken up againe and buried, where ſhe deſired to be in her life-time; which being done, both ſhe and they reſted.

A Hiſtory of a Gentlewoman, who for not being interred in the Church-yard moleſted her family, by her *ghoſt*, while ſhe was diſinterred, and according as ſhee deſired, was buried.

A TREATISE OF MENTALL-RESERVATION; And of no faith to bee kept unto *Hereticks*.

Section 1.

The decree of the Councell of Constance, *That no faith is to be kept with hereticks and enemies, is agitated: the commendation of peace: that a necessary and iust war is to be preferred to it: A story of Augustus Cæsar.*

I begin this rhapsodicall Treatise with the famous act of the Councel of *Constance*, wherein it was decreed, That no faith was to bee kept unto Hereticks and Enemies of the faith; by vertue whereof, as *Vlidislaus* King of *Hungary* violated the peace concluded betwixt him and *Amurath* (for the time great Turk) at the instigation and solici-

tation of *Cardinall Iulian* sent to him from Rome for that purpose, to the great prejudice of the civill Christian estate, and aggrandizing of theirs; So by vertue of the same the Martyrizing of Iohn *Husse* and *Hierome* of *Prague* although under trust and safe conduct granted by the good Emperor *Sigismundus*, was to the great prejudice of the Ecclesiastique Roman estate, by renting a sunder from her Sea a great many of the Churches of Europe: for hee that is the God of peace and Hosts both, never exercises his revenging hand better then when things agreed upon equall termes are not observed: So the Histories report, that the same day of the Battaile given by the *Hungarian* King unto the Turke, that *Amurath* lifting up his eyes unto heaven, should say, *Iesus*, if thou be a true God, and of this people who encounter mee this day, and that they honour and serve thee, shew it by the equity of this cause, which by his obtaining of that dayes victory was plainly manifested: and it is manifestly seene, that the breach of faith plighted to the two *Bohemians*, and their burning unto ashes, was so far from smothering the faults whereof they complained; that on the contrary, diverse worthy and learned men after them, blowing this coale, by them then kindled, have made its flame to blaze through all the world: as the bloudy wars through many parts of *Europe*, for maintaining of their cause; at least their opinions, can to after ages beare record.

It is true indeed, this word Peace sounds sweet in every eare; wherefore our Saviour *Christ* leaving this world, left his peace with his Disciples; and his house also is called *Domus pacis*: and blessed be the

feet

feet of those that carry the glad tydings of peace; yea, the Angell from heaven proclaimed peace on earth, and towards men good will: in a word, *Beati pacifici, Blessed are all peacemakers:* yet it hath never beene thought so gracious, but that a necessary warre was to be preferred unto it, if it was dishonestly violated, or shamefully agreed upon.

Bartol and *Vlpian* admit deceit to bee used with the circumventer, and no faith to be kept to particular enemies

What then may be said to *Bartoll* one of the greatest Lawyers of his age, who in the Law, *Conventionum codice de pactis*, or at least in the *Digestis* maintaineth, That faith is not to bee kept to particular enemies; which *Cicero* in his 3. *lib. Officiorum*, although but a Heathen, contradicteth: and that of *Vlpian*, no lesse in credit than he, That it is lawfull to circumvent one another; and chiefly, seeing in all their writings they esteeme more of the true keeping of our promised faith in all our actions, than of strict and precise justice; but so thought not the good Emperour *Augustus Cæsar*, though he had promised a great many Talents of gold to those who should bring him the head of *Crocotas* a notable robber in his time, which robber hearing of this reward, came of himselfe, and layed downe his head at the Emperours feet, and craved the reward conditioned; whereupon the Emperour did appeare so farre from revenge, that he forthwith granted him not onely his life, but the promised Talents also.

The Emperour *Augustus* kept faith, although to a rogue.

Neither did the noble *Iosua* so, when he was deceaved with the *Gibeonites*; for although those deceaving Polititians, or rather hypocrites hold for truth that,

Frangenti fidem, fides frangatur eidem.

And worse than that, they doe violate likewise their

their plighted faith to those who have done them no injurie, nor made any breach of faith at all: yet, I say, *Iosua* did not so to the *Gibeonites* who deceived him; for when the Iewish Captaines would have beene revenged on them; the Princes answered: Wee have sworne unto them by the *Lord God* of Israel, now therefore we may not touch them, &c. *Iosh.* 9. 19.

Section 2.

Mentall-reservation defined. All fraudulency, in making peace, or taking truce condemned; for which purpose are instanced examples of Grecians, Romans, *and others.*

WHat shall bee said to those, who while they sweare and promise, have nevertheless in their minde no intention at all to performe?

Of mentall reservation, what it is.

Linguajuravi, mentem injuratam servavi.

A *maxime* with the former, not hatched in the braine of a *Florentine* matchiavill, but raked out of the profoundest Cabinet of the most secret, and most obscure dungeon in hell: *Cleomenes* after a truce made up with the *Argiues* for seven dayes; the third night thereafter under trust and assurance, surprized them; and then being challenged of his promise, made answer, That he made truces for dayes, and not for nights: *Lysander* used to say, that men should be deceaved with oathes, as children with apples: the generosity of a noble *Alexander* acknowledged no such guile; who when *Polypercon* his Counsellor had advised him to take advantage of the darkenesse of the night, against *Darius*, could reply, That he had rather chuse to repent the losse of his fortune, than to purchase

Cleomenes although packt up a truce with his enemy, for some dayes, yet in the night surprised them

Alexander the great could honourably say, *Malo me fortunæ peniteat quàm victoriæ pudeat.*

chaſe victory with ſhame, *Malo me fortunæ pœniteat, quàm pudeat victoriæ:* and the magnanimous *Romans* were offended w^th their Embaſſadour *Lucius Marcius*, in the managing of his wars with *Perſeus* King of *Macedon*, becauſe he went about by ſubtilties and circumventions to purchaſe his victories: on ſuch conſiderations as theſe, they ſent back to *Pyrrhus*, K. of *Epirots* his Phyſitian, (who had undertaken to poyſon him:) likewiſe *Camillus* at the ſiege of *Veij*, made the children whip their Maſter with rods, who had rendered them by his treachery into the Conſuls hands. The braveſt, both Commanders, and Souldiers, who were taken priſoners by the *Samnites*, and had obtained liberty to come backe to *Rome* to take leave of their friends; were by them ſent back againe, or rather, returned of their owne accord, although ſome to a certaine death: ſo farre were they from holding, that faith ſhould not be kept either to enemies in generall or particular, much leſſe to ſtretch a thing to the contrary, whereof they had a reſervation in their minde; for by ſuch jugling evaſions thoſe *Roman* priſoners taken by *Pyrrhus*, and permitted to come home and viſit friends, might have alleaged, that they were not obliged to return, (as they did) becauſe they might have ſaid, that howſoever they had ſworne with their mouthes, yet in their hearts they thought not ſo: likewiſe, *Attilius Regulus* the Conſull, taken by the *Carthaginians*, and ſet at liberty to viſit the City, upon promiſe of returne might have ſaid: but the innocency of that age knew no other way but the right and ſquare, and rather chooſed to undergoe death, than to make a breach of the integrity of their faith made unto an enemy.

The *Romans* offended with their Legat *L. Marcius*, becauſe that in their warres under him with *Perſeus* King of *Macedon*. he uſed ſubtilties and circumventions.

Section

Sect. 3.

The integrity of the ancients commended in making peace, and their other pactions. A story of P. Corn. Scipio to that purpose. Græca fides, *what, and wherefore used: Of the dishonest dealing of Pope Alexander, and his nephew,* Cæsar Borgia, *&c.*

The manner observed by the ancients in making their truces, peace, or other pactions.

I will not passe under silence the manner observed by the Ancients in breaking truces, peace, pactions, or leagues amongst them; that posterity may understand, how averse they were from having their thoughts dissonant from their words: and to this purpose I remember, that at the peace concluded on betwixt the *Romans* and the *Carthaginians* in the dictatorship of *Pub: Corn. Scipio*, a *Roman* Herauld standing up betwixt both parties, assembled for finishing of the same, after they had spoken their mindes, *hinc inde*, the Herauld, I say, standing with a stone in his hand, in these termes concluded the matter.

The termes and words of their covenants.

If justly, and without any fraud or guile, I make the oath of observancie, and doe finish this paction, then may the Gods be propitious, and grant that all things may fall happily out unto us; if I either doe or thinke otherwise than I have spoken, then, (so all the rest be safe) let me fall and perish alone by mine owne Lawes, in my owne family, with my private Lares, and domestick Gods, in my owne Temples and Sepulchers, as this stone fals from my hand; which words finished, he throweth the stone from him, or

rather

rather lets it fall to the ground, and ſo endeth. The *Carthaginian* Herauld ſwore by all their Countrey Gods, and their private ones, to obſerve all that is covenanted. *Livius* noteth theſe ſame tearmes to have beene uſed in the firſt peace concluded on betwixt theſe ſame people in the conſulſhip of *Iunius Brutus*, and *Marcus Valerius*, or ſhortly after (if *Sabellicus* miſtake not), which two firſt Conſuls, *Rome* had diverſe yeeres before *Zerxes* expedition againſt the *Greekes*: alwayes *Polybius* hath theſe ſame words both exemplary and memorable: like as *Sabellicus* in his *6. lib. Ænead.4.* punctually ſetteth them downe, albeit both *Livie* and *Dionyſius* remarke but the generals: the ſpeciall thing which I obſerve, is the word *Cogito*: if I thinke otherwiſe; which confounds all our mentalliſts, and makes them *Mentiriſts*: let the *Greekes* with their deceaving tricks and cooſenages keepe that diſhonourable honour, *Græca fides*, which is alwayes taken for a ſubdolous and fraudulent faith: but God defend that ever ſuch aſperſions and imputations be laid to a true *Britanne*; and let Popiſh *Rome*, now of late declined and degenerated from the old honeſt *Rome*, pride her ſelfe and her ſectaries in their mentall-reſervations; let one Pope *Alexander* and his nephew *Cæſar Borgia* vaunt themſelves; the one, that he did never think the thing which he ſpake; the other, that like our mentalliſts, hee never ſpake the thing which hee thought: and let a *Leo* the tenth of that name, promiſe truth and faith to a *Paul Baillon*, (who had expelled his nephew out of *Perugia*,) that he under truſt of his Holineſſe's word ſhould come unto *Rome* ſafely with his aſſociates, to live at Court as before,

The *Grecians* branded with that, to be called, Not keepers of their oathes.

Pope *Alexander* and his nephew *Borgia* both remarked diſhoneſt in their deeds and words.

fore, and yet nevertheleſſe, did put him and them to death: as likewiſe a *Cardinall, Alfonſo* of *Siewna*, who for ſuſpition of poyſoning the *Pope* with a Buccado, or Noſegay, retired himſelfe from Court, perceiving his Holineſſe countenance to bee caſt downe upon him, and would not be moved to returne againe; but under his holineſſe faith and true promiſe made, not onely to himſelfe, but to the Embaſſadour of *Spaine*, in his Maſters name, for his more ſecurity alſo; yet nevertheleſſe having once caught him in his net, did put him to a violent death.

Other *Popes* guilty of that ſame fault.

His ſucceſſor *Clement* the ſeventh did almoſt this ſame to the *Florentines*, to whom, as he had ſolemnly conditioned to give them their liberties and Immunities, as likewiſe to the Spaniſh *Ambaſſador* in his Maſters name, for them, for their further ſecurity; yet being once poſſeſt of their City, contrary to promiſe, he ſubjected it to his Nephew, who having ſtrengthned it with ſtrong and mighty Cittadells and forts, did appropriate it to himſelfe and his family: Let theſe Popes (I ſay) thinke and promiſe one thing, and doe another; farre be it from any *Britan* to doe ſo; as equity and truth is, or ought to be in your hearts, ſo let truth be in your mindes alſo.

Exhortation to his Countrey-people not to doe ſo.

Section

Sect. 4.

The difference betwixt the auncient and the moderne Romans in uprightnesse of dealing, instanced by a story of Pompey the Great, and Augustus Cæsar.

AND now it shall content me to parallell one example amongst thousands which I could produce, of the honestie and integrity of old Rome with our new Christianized Rome; and then let the indifferent reader judge of the one and of the other; The great Pompey, when he with his Navall Armie (so much renowned in their stories,) had scowred all the Mediterranean Sea, then infested with Pirats, having (I say) given his promise of safety to one or two of the most speciall amongst them, did not violate nor molest them; but that was little; for *Augustus Cæsar* did as much to *Crocotas*; but herein shewed he his honest minde, that when he had two of his most speciall enemies within his chiefe *Galleon*, (although for the time but coldly enough reconciled unto him,) and was spoken unto by the Pilot, who acquainted him, that now it was the time to ridde himselfe of them both; and if hee pleased, that he himselfe should be the man to doe the businesse; No, no, said he; If thou haddest killed them without acquainting mee therewith, then hadst thou done a peece of good service; but now, doe it not, since they are here under my trust.

The integrity of ancient Romans.

Quia habita fides ipsam obligat fidem.

Wee

We should make our words and actions agree and jumpe together, such Princes who in their life time dissembling grant pardons to offenders, and yet leave it in charge to their successors to be avenged on them, can no wayes be excused: for seeing our intentions do judge our actions; death cannot acquit them of that obligation, besides that the entrant King is made formidable at his entrie, who otherwise should enter his Crowne with love and peace.

Sect. 5.

Of the breach of Faith to Enemies: Treacherie at a Siege of Capua: Treacherie and cruelty committed by the Spaniards at a Siege of Genoa. The strictnesse of Generalls over common Souldiers exemplified, &c.

Of keeping no faith to enemies.

NEither yet know I how to exempt from the scandall of this fault these two which I read of in the late Italian History; The one, that of the LORD *Aubigny* at the Siedge of *Capua*, where he commanded the French without the Towne; and *Seigneur Fabricius Colonna* within: For the Historie saith, that while the said *Colonna* was parlamenting on the face of a bastion with the said LORD *Aubigny*, upon conditions of surrendring; That the (French by the negligent watch of Centinells within, suspecting no hostility during a parle) entred the Citie in fury, and so made Prize of it.

A fault committed by our Duke Aubigny at the siege of *Capua*, or rather by the insolent French under him.

Although

Although it might bee lawfull to all commanders (where there are no covenants made) to take the best advantages of their adversaries that occasion can offer; and though *Montaignes*, whether favouring his owne countrey, or being mis-informed of the passages of that Siedge (I know not) thinketh that this Policy was intended or premeditated by that ever upright and most valourous Warriour *Bernard Lord D' Aubignie* (which must be a mistake;) yet the Precedent and succeeding most valourous and many most generous acts of that ever renouned man, may witnes the contrary; for many French Writers, (as may be seene in Master *Quines* booke of his life) have so ingenuously, honestly and according to his Merit, illustrated his brave acts in so lively Colours, that the honours, which for them were conferred upon him, would convince one, and confirme their credit that have so largely and truely spoken of him: that it may truly be continued of his worth.

Vivet post funera Virtus.

The other at *Genoa*, where the Marquesse of *Pesquierra* was commander of the Spanish forces without the Towne, and the Duke Seigneur *Octavian Fregoso* commanding within in the name of the French King; in like manner (and it may be for revenge and compensation of the Capuan cruelty) whilest the two Generalls were under tearmes, yea, and finall conditions of rendring the Towne; The Spanyard (taking advantage of the negligent attendance of those within, who were secure, thinking all ready for the surrendring) entred the City, putting them all to the sword without distinction of Age, Sexe, or condition.

A Cruelty committed at Genoa against the French within, by the Spanyard without.

I know not (I say) how to quit these two from the imputation of treachery, except to say, that at times the insolency and fury of poore incensed Souldiers is so hardly suppressed by the threatnings of their Generalls or Commanders, as is a wonder; yea admit it were in as reformed a Warfare as that whereof the Lord Montagues in his Chapter of Conscience *lib.* 12. speaketh; where amongst divers others of his notable discourses, he bringeth in a Generall causing to kill a Souldier and rip up his stomack to see the pottage which a poore woman complained he had wrest from her, and with which she was to save her childe from starving, conditionally, that if it were not found there, the Woman playntife should dye, to expiate his death and her false accusation.

But strange it is albeit, this former recited Maxime should hold in Warres; That from a generall Councell which (as they say) cannot erre, the representative body of the holy Church, the Columne of veritie, that from it (I say) such a decree should have sprung, which may occasion us to say of them as was said of the licentious Souldiers, *Quibus, cùm quod libet, licet, & quod libent, audent, & quod audent, faciunt: O Sæcula, O mores!*

A

A TREATISE OF LAVGHING AND MOVRNING.

Section 1.

The benefits and content that all men reape by the workes and labours of Writers and Travellers.

HIstories and travellers are said to be like those who cracke the Nut and give away the kernell; their toyles, labours and witty inventions are by them readie dreſt for all readers, hearers or ſeers; for when they read their travells and ſtudies, they are

like thoſe who lying ſecure upon land, doe from ſome Promontory behold a ſhip toſſed on the ſwelling billowes, beating with raging windes and tempeſts, and well nigh Ship-wrackt: *Et mare cum Spumis candentibus aſtra laceſſit: & cum tartarei ſubſidit ad ima barathri:* Who ſees or reades their workes receive the ſweete of their toile: but yet not hereby challenging any ſingularity unto my ſelfe above others, I freely offer and expoſe theſe labours to all, which for the variety will (I hope) bee acceptable; and gracious acceptance is the reward I crave. But to the matter in hand.

Section 2.

Of ſudden deaths that have hapned unto men amidſt their feaſting and other Iollities, exemplified with ſtories both Sacred and prophane.

IN the Countrie of *Agenois* (a part of the famous province of *Aquitaine,*) where firſt I ſpent ſome yeares not without ſome copious and ſeverall obſervations: a Baron there, M^r. *de Longad la barriere,* at a feaſt in his owne houſe, laughing and making merry with his Gueſts, having a legge of a pullet in his hand, expired ſuddainely amongſt their hands. Mirth at banquets ſhould not be exceſſive but moderate; for which the *Ægyptians* uſed at their feaſt to ſet a Scull or Anatomie on or by the table, that by the thought

Little good followeth commonly exceſſe of mirth and laughter.

and

and ſight thereof they might moderate their exceſſe, which oftentimes haſtneth death or elſe diſeaſes.

Holy Scriptures furniſheth us with examples, as thoſe of *Nebuchadonoſor*, *Baltaſar*, and the rich glutton, who had the moſt exemplarie puniſhments in this kinde that we reade of.

Examples of Nebuchadonozor, *Baltaſar*, and the rich glutton to this purpoſe.

In the Roman Hiſtory *Cornelius Balbus* recorded by *Tacitus*, who, whileſt he was under a cloud and ſilence of night, carouſing, quaffing, and laughing ſo loud, that the ſicke Emperor (his Lord) could heare him from his chamber windowes with his camrades, is memorable, who not only endangered the loſſe of his Princes favour, but of his life alſo for his ſo unſeaſonable and inſolent mirth.

Now, if we ſhall leave feaſting, and but ſpeake of other Ioyes, we ſhall finde that when men thinke their eſtate moſt ſecure, and doe rejoyce in the injoying of it; that even then their ſuddaine fall hapneth, and followeth them as their ſhadow: King *David* for glorying in his numbered people, was plagued: *Iulius Cæſar* in his imperiall Throne having by the overthrow of his enemies attained that verticall point of earthly honour, was even then and there murdered.

Examples of ſuch who in the middeſt of all their felicities, have been taken away.

King Henry the ſecond of France, was amidſt the triumphs and tiltings of his Siſters wedding ſolemnities, killed. King *Henry* the third at the rendering up of his rebellious Citie of Paris to him, was murthered by the trayterous ſtroake of a blacke Frier, his predeceſſors both ſhortly taken away: But more miſerably, his great and valorous ſucceſſor *Henry* 4th. in the middeſt of that glorious City, and of the pompous ſhewes at his Queenes coronation, was murdered.

Our hopefull Prince *Henry* taken away about the time of his ſiſters mirthfull Nuptialls.

And I read of a Prince in an Hiſtorian, whoſe torch dedicated and lighted to Hymen in his nuptialls, ſerved to kindle his funerall pile.

Not to ſpeake a word of *Philip* of Macedon killed in the middeſt of his Army, while he is aſſiſting the ſacrifice to the Gods: Nor of his Son *Alexander* the great, cut off in the floure of his yeares, Ioyes, and glorious great victories, with a thouſand of this ſame kinde.

Section 3.

Stories of ſeverall worthy and brave men; that upon occaſions have ſhed teares: of the ſenſible greefe of ſome Horſes, Dogges, and Hawkes upon the loſſe of their Maſters.

Wiſely was it ordained that the Paſchall Lambe ſhould be eaten with ſoure hearbes.

WHich being ſo, we may ſee that the Lord ordained wiſely the Paſcall Lambe to be eaten with bitter hearbes; And providently the old heathen enjoyned us to mingle cares amidſt our joyes.

Læta tibi auſteris varientur feſta profeſtis.

Our Saviour did never laugh.

From holy Scripture we have warrant, that it is better to be in the houſe of mourning and weeping, then in that of laughing: And bleſſed are they that weepe; for they ſhall bee comforted, and their teares waſht from their eyes; our Saviour is ſaid to have wept, and never

never to have laughed: we reade of St. *Peters* teares; of the royall Prophets, of the Prophet *Ieremy* his complaints; of the groanings, howlings and lamentings of the beſt ſervants of GOD, of none, or little of their rejoycing, except it had beene under the Croſſe, or at leaſt in the Lord; finally with teares wee come into this world, with care wee abide in it, and with paine we remove from it.

Foure famous and renowned Warriors, have ſhed teares.

Yea even of thoſe who are moſt enured, and hardened with fights, bloudſheds, alarmes, and conſequently, who ſhould ſeeme moſt averſe from teares, pitie and compaſſion, ſome I marke to have ſolemnly wept and are ſignalized, more peradventure in conſideration of humane frailty, as meaſuring things by themſelves, then otherwiſe for any great matter or reaſon they had to ſhedd teares for the time; ſeeing they had obtained the thing they ſo eagerly deſired.

——Nam cum præda ſternitur, alter
Præmia ſolliciti certa laboris habet.

The Emperor *Adrian* even amidſt all his triumphs, remembring the frailty of nature.

The good Emperor *Adrian* at his triumphant entrie into Rome after a remarkable victorie, ſeeing the innumerable ſpoyles of his enemies before his Imperiall chayre, and the Captives themſelves manicled and fettered with chaines, doing homage unto him; It is recorded of him, that though he rejoyced in publike, yet in private hee wept, and in a manner expreſſed by all likelihood no leſſe than our famous *Buchanan* in this diſtich.

Tu quoq; crudelis Babylon dabis improba pœnas;
Et rerum inſtabiles experiêre vices.

King

The Prophet *David*, when he did heare of *Absolons* death *Iulius Cæsar* at *Pompeys* head. *Vespasian* seeing the temple of *Salomon* on fire. *Xerxes* seeing all his numerous Army before him.

King *David* shed teares at the sight or hearing of his sonne *Absoloms* death: *Iulius Cæsar*, at the sight of *Pompeys* head: *Vespasian*, seeing the holy and magnificent *Sanctum Sanctorum* on fire: *Xerxes*, the insolent Persian King, yet seeing a number of hundred thousands in a plaine, wept, considering the frailty of nature; for that of so many as hee saw there, they might bee all dead in few houres, dayes, or yeeres. To these, I may subjoyne *Bajazet* successor to *Mahomet* Emperour of the *Turks*, *Anno*, 1481. his teares, after his brother *Zizimus* had surrendered himselfe to the great Master of *Malta*, in name of all the Christian Princes; whom nevertheless he drove to that extremity. As for *Heraclitus* his perpetuall weeping for the misery of this world, I thinke it as worthy of blame, as *Democritus* his continuall laughing at the folly of it: seeing (with *Salomon*) there are times to laugh, and times to weepe also,

---Nam res humana fatiscit,
Læta nisi austeris varientur festa profestis.

We reade of Horses which have wept.

And if we trust *Sabellicus*; not onely Men, but also Horses and Dogs, have beene seene to weepe for the losse of their Masters; he instanceth particularly, that those Horses which *Iulius Cæsar* vowed to *Mars* at his passage over *Rubicon*, were observed before his murther to stray carelessely up and downe, prognosticating (as it were) their masters death by their unaccustomed drooping, dejectednesse, and shedding of teares: *Du Bartas* Hawke, which hee relateth to have cast it selfe (after some other signes of sorrow) into the grave with the corps of its dead Master, may be mentioned as rare and memorable.

Sect.

Section 4.

Risus Sardonicus, what, and how to be taken: Of the holy teare kept in the Abby Church at Vandesme, in France.

NOw for laughing: that which we call *Risus Sardonicus*, is a perfect modell and patterne of our humane laughing: for as they who have eaten of the hearb *Sardis*, do all the perfect gestures of one tickled with joy or mirth, as dimpling their cheeks, and other like gestures; yet it is onely the contracting power of that venomous herbe, that procureth that convulsive gesture in them: the *Crocodiles* teares may be compared oftentimes to our weeping, as being either delusive, treacherous, or revengefull; and too many (I feare) doe like *Iudas*, kisse, onely to deceive.

But what shall be said to the Teare which is conserved in a Violl, and kept in a little Chappell on the North-side of the Abbey-Church, at *Vandome* in *France*; which they give forth to be a teare which fell from our Lords eyes, and was kept since in that Violl by some holy Saint living in those dayes; which in an overpious beleefe, they say, hath continued since without diminution; by them called, *La Sainte larme*, The holy teare: this at solemne festivall dayes they shew and exhibite to the superstitiously credulous people, that repaire thither from the remotest parts of that kingdome; who with great and submissive

The Teare which is in the Abby Church of *Vandome*, what it can be.

missive prostration and kneeling, kisse it, to the great and gainefull profit of the keeper: truly, for my owne part, I am not so universally catholick (though I have seene it) as to beleeve that, no more than their religious paradoxes of the transportation of our Lady *De Loretta* her chamber from so many diverse places and countries, to the place where now it is: neither finde I any motion to pray God for helpe in my unbeliefe of this and other such fained miracles of theirs, being so meerely and palpably grosse inventions of men,

Sect. 5.

Of weeping for the dead how to be moderated. The matter of teares: of laughing and weeping for one and the same thing: moderation in both commended.

Weeping for the dead allowable, provided, it be not immoderate.

ALthough *Tertullian* in his booke *De patientia*, did forbid the people in his dayes to mourne and weepe for the dead, yet our Lord and other Saints have wept for them: S. *Paul* indeed, reprehendeth the immoderateneſſe of it, 1 *Theſ. chap.* 4. where he forbiddeth not *the Theſſalonians to ſorrow at all; but not ſorrow as thoſe who had no hope of the reſurrection.* The Poet could finde fault with immoderate mourning for the dead; which in this Iron and declining age of the world but very few needs to be reproved for.

Tu ſemper urges flebilibus modis
Miſten ademptam, nec tibi veſpero,
Cadente decedunt amores,
Nec rapidum fugiente ſolem.

The philoſophicall reaſon given for not mourning for the dead, I thinke neither allowable to a Chriſtian, nor to a meere naturalliſt; for they ſay, that it is but loſt time and action, ſeeing death is remedileſſe, common, neceſſary; and teares cannot prevaile to recall them againe, and therefore availe nothing: for ſuch like arguments are rather to reinforce ſorrow, than otherwayes to mitigate griefe: and ſo much the rather, becauſe there is no remedy for it: for as another Philoſopher replieth to one who reprooved him for lamenting ſo heavily the death of his ſonne, ſince (ſaid he) you know that there is no remedy for it; and therefore (replied the other) doe I weepe: yet ſome of the wiſeſt ſort of them agreed unto this mourning for the dead, as a kind, naturall duty; in ſo farre, that they who wept not for their parents death, were by them ſaid,

In patrios minxiſſe cineres.

Not to ſpeake of the matter of teares, whether it be the ſame with that of ſweate, or the wateriſh part of bloud, all theſe being ſalt: I ſhall enquire the occaſion of teares, which we finde out of holy and prophane ſtories, to be both joy and ſorrow. In *Ezra*, when the *Iewes* ſaw the holy Temple re-edified, *They wept* (ſaith the Prophet) but diverſly, ſome for joy to ſee it rebuilt againe, others for ſorrow to ſee the

The matter of our teares.

We laugh and weepe diverſly for the ſelfe-ſame cauſes.

glory

glory and ornament of it, as it was then, not comparable to the former: so wept *Ioseph* for joy upon his brethrens necks: in a word, ire and revenge will occasion teares, as well as pitty and compassion; yea, some will weepe onno occasion.

Mens immota manet, lachrymæ volvuntur inanes.

Neither they commendable who laugh alwayes, nor they who mourne.

I can say no more to the stupidity of these people, than to their folly who laugh at all occasions without cause.

Section

OF VARIETIES THE FOVRTH BOOK: CONTEINING FOVRE TREATISES.

OF
1. *Curiosities.*
2. *Divine Philosophy*, or *Mans felicity.*
3. *The Consonancy* and *agreement betwixt Ancient Philosophers and Christian professors.*
4. *Sleepe* and *Dreames.*

BY
DAVID PERSON of *Loughlands* in *SCOTLAND* GENTLEMAN.

Et quæ non prosunt singula, multa juvant.

LONDON,
Printed by RICHARD *Badger*, for *Thomas Alchorn*, and are to be sold at his shop, in *Pauls Church-yard* at the signe of the Greene-*Dragon*. 1635.

John Stewart, Earl of Traquair
succeeded Sr Thomas Hamilton as Chancellor in 1635.

TO

THE RIGHT HONORABLE,

IOHN,

Earle of *Traquair*, Lord *Linton* and *Caberston*; his MAIESTIES *Treasurer Depute* of *Scotland*, and one of his *Majesties* most Honorable *Privie-Councell* there.

Right honorable,

EXamples of Histories and daily experience teach us, that as Piety and Iustice are the pillars of a State, and the Countrey happy (as none more than ours) whose King is endued with them, seeing people commonly follow their example; so most fortunate is the Land, where a most wise King substitutes such officers of State, as whose piety, justice, charity, and other vertues, may be a comfort, rule, and example to the people, over whom God and their King hath placed them: That this reflecteth upon you my Lord, none of our Nation is so destitute of understanding as to question; upon which assu-

rance

rance I have adventured this dedication to your Lordship, that where these eminent vertues doe so cleerely shine there can be no clouded mystinesse cast betwixt a candide and auspicious acceptance, and this small tender of my duty to honourable vertue, and entire affection to your Honour: which in your younger yeeres at Paris (where I began this work) I did vow unto your then blooming merits; and now performe, that it may remaine to after Ages, as an everduring token of the love, favour, duty, honour, and respect, that was alwayes carried to the most illustrious name of Stewart in generall, and to You my Lord in particular, as a Noble branch of the Honorable Stock of Lennox, By

Your Lordships faithfull and affectioned servant,

David Person.

OF VARIETIES THE FOVRTH BOOKE,

Of Curiosities, where the greatest Subtilities of all Sciences are some way unfolded, and disapprooved; and some naturall Curiosities propounded, as of the Heavens, Aire, Seas, Earth, &c.

Section 1.

The difference betwixt factions and seditions: a rebellion of the common people of Rome against the Senate and Patricians. Emulation a principall producer of great exploites; the harme that followeth Curiosity, and that Churchmen are not exempt from it.

AS order and unity are the upholders of a Commonwealth, so factions and seditions are their overthrow; These two I hold not to bee one; for sedition is by open violence; faction, under colour of Iustice; That both these are procured by too curious

Difference betwixt factions and seditions.

and ambitious braines and diseased spirits, who envy other mens preferment or wealth above their owne; it is manifest; as thorow all the Romane history, so particularly in that sedition of the Commons who openly rose up against the Senat and Patricians, flying in armes to the Aventine Mount, where nevertheless by that elegant Oration of Menenius *Agrippa* (set downe by Livius at length) they were appeased.

Vproare of the Commons at Rome against the Patricians, appeased by *Menenius Agrippa.*

My purpose here is not to hinder that honest emulation, and allowable curious ambition of well doing either in private or publike men; for both the Greeke and Roman stories doe sufficiently informe us, that there were never greater incitements to an emulous antagonist, then their opposites glorious exploits in war, and vertuous proceedings in peace; nor sharper spurres to waken and rouse up their lasinesse (if any was) then the desire to parallell them; examples are very obvious in this kinde. My intent here is to desire a moderation in men of all conditions, especially the learned; for the harme, prejudice and evill that idle and sturring Curiosities (which have beene caused by *Antagonists* emulations, and disputes) have procured in private and publik men or States, in warre and peace, is universally and dayly perceaved and regrated: And who so would thinke that our Clergy and Gowne men who prescribe rules of wisedome unto others, are to bee exempted from this fault, are farre deceaved; for both of old and late dayes they have barboyled the sound doctrines of their professions, with their idle, unnecessary, and too curious questions; who so will with me skimme over but a handfull of them, shall soone confesse this truth.

Emulation and ambition in welldoing is allowable.

Curiosity the Mother of mischief.

Our Schooles and Learned men not exempt from it.

Section

Section 2.

How Curiosities have wonderfully disturbed the peace of the Church; A Recitall of some impertinent Curiosities in Religion; with some also of Subtilis Scotus, and Thomas Aquinas, &c.

AND first then, it may bee demanded, what solid peace and agreement hath been in the sacred *Church* which is the piller of Truth, since the purity of the Primitive Doctrine left by the holy Evangelists, Apostles, and their Successors hath beene adulterated, and martyred with curious questions; as those of Transubstantiation, Concomitance, Latreia, Dulia, Hyperdulia, mentall reservation, equivocations, implicite faith, congruities, condignities, and Supererogations, together with the inerrability of the Popes Holinesse, *Semi-man*, and *Demi-God*; as also those questions of our late Divines, whether CHRISTS death alone was satisfactory for our salvation, or His life and death together? And those questions also of providence, of predestination, of prescience, Gods effective and permissive power in sin, if GOD can lie, or recall time past, or make a thing done, to bee undone, *&c.* what hath mooved our so inquisitive Curiosists, as *Subtilis Scotus*, and *D. Thom.* who have (as it were) so overclouded all with their pregnancies of wit, to be so curiously sol-

What peace hath the most curious questions brought unto the Church, but rather hath divided us all.

In Metaphysick we crossed to know, if there be in nature any other production besides Creation and Generation.

licitous, as to enquire, whether or not besides Creation and Generation, there were any other production of things in nature different and distinct from those two? Wch surely is not; for by that meanes accidents should befound to be concreated & congenerated, not *inhesive*, and having their being in the subject according to the Logicians rule, *accidentis est inesse*. Whereupon followed that no lesse idle then curious question, whether God may sustayne accidents after the substracting of their subject from them, in which they were, and with which they were concreated; as who can imagine a whitenesse to exist without a wall, paper, cloud, cloath or some such subject to be in, wherwith first it was concreated, as *Ruvius* in his Commentary upon the second *Phys.* and second *de anima* fondly giveth forth? seeing it is certaine, that the actions of Gods will are ever bounded to, and terminated with an object, either possible or actuall; and the reason of this is, because all potency and possibility to bee, tendeth to and terminateth in an object, from which it may assume the owne species & kind; So that the acts of the divine Intellect or understanding tending to an object extant, or inaptibility to exist, do tend to it, as it is in the Divine intellect; and so consequently such, as actually or possibly existeth.

Whether accidents be create or concreat.

If *God* may sustayne accidents without their substances to subsist in.

The actions of Gods will tend unto, and terminate with a subject.

Such questions as these being more fit to cruciate and perplexe the mindes, yea even of the most learned, then otherwise to instruct them or any of the weaker sort.

Section

Section 3.

A continuation of some other Theologicall and Metaphysicall subtilities and curiosities.

SVch as this, is that of the multiplicity of formes in one selfe same subject, and this; if the formes of matters be extracted out of the potentiality of the matters, which certainly is, the first, not: wherein I agree with *Suares*, in his disputation upon the first of the Metaphysicks; and whether *Angells* be species or individualls; howbeit in my minde, what ever *Divus Thomas* speaketh in favour of species, they are more properly to be held as individualls; yea, and with our Moderne Divines reverence, whether Protestants or Iesuites; what can bee the formall object of our faith, the subject of it being once perfectly knowne; howbeit in effect to my opinion, the formall object of it (with *Divus Thomas*) must bee the divine verity manifested unto us in holy Scripture by our Lord and Master, the holy Prophets, Evangelists, and Apostles, the pen men of GOD, together with the authority of the Church, which authority is but as a testimoniall, and secondary, and with both and all others permission, who prye and dive so deepely in the *Orcum* and mysteryes of Learning, as, whether or not Creation bee all one with the thing Created, sooner solved, then advisedly propounded:

If there be multiplicity of formes in one selfe same matter.

If formes of matters be extracted out of the potentialitie of the matter.

If Angels be species or individualls.

ded: for ſo it is, that Creation being an action of the divine will, *fiat & factum eſt. Gen.* 1. 34. Moreover, that will in GOD, and His Divine eſſence being all one, there is no queſtion, but that Creation is prior to the thing created: the like, or part whereof neither the *Iewiſh Thalmud*, nor the *Mahometan Alcoran* ſcarce ever did propound to their Readers. But I leave the ſublimity of Theologicall and Metaphyſicall queſtions which hath puzled marvellouſly even the beſt refined and acute Spirits.

Section 4.

Of Curioſities in Logick; the relation betwixt the Creator and the creature: to what Heaven the Prophet Enoch and Elias were wrapt; what place is ſaid to be Abrahams boſome.

Curioſity in Logick to know what ſort of relation betweene the creature and the Creator.

WHat hath the Logician advantaged his art of reaſoning by troubling himſelfe and others, with what kind of relation is betwixt the creature and the Creator? Whether, with Ariſtotle, predicamentall or not? mutuall, or that it holdeth onely of the creature, not of the Creator alſo? howſoever, predicamentall with Ariſtotle it cannot be; for that Creation argueth no change in GOD, (as it doth in the thing Created, which is tranſchanged from a not being to a being which is certaine,) becauſe GOD and ſupernall intelligences

intelligencies (as meere formes free of all matter) doe worke by their intellect and will; So that Creation proceeding from GOD as an act of His will and intellect, must have beene from all eternity with Him, nothing being in Him which was not with Him likewise.

To the former adde this curiosity likewise: what Heaven it was which the Prophets *Enoch* and *Elias* were wrapt into? for our curious *Ouranographers* by their doings (I warrant you) shall exclude them out of all Heavens: for why say they? into the Aire, (which is the first Heaven) they could not be wrapt, seeing if they were taken up from the Earth for rest and ease, there they would find little, it being the proper place of stormes and tempests; neither into the second, for if for ease, joy and rest, they were taken from the earth, it behooved to be elsewhere then there, because that starrie Heaven by many is held to be in perpetuall revolution and motion; much lesse will they admit them into the third Heaven; because they were not as yet glorysied, at least, there is no warrant in Scripture for it: besides that, our MASTER IESUS CHRIST being *Primitiæ resurrectionis* was the first that entered, which was many ages after their uptaking.

What Heaven the Prophet *Enoch* was wrapt unto.

Where the bosome of ABRAHAM is, to which most credibly they were rapt, our curious Topographers cannot agree; their sublimities and curiosities rather producing scruples then instruction. What it is, is by all almost agreed upon; but where it is, maketh the doubt: with *Peter Martyr Vermillius loco. 16. Classis 3.* It is thought to be nothing els then a

What and where *Abrahams* bosome is.

place of rest, where the soules of the Fathers departed before our SAVIOURS comming to the World, were attending, and in joy expecting it, denominated from *Abraham* the Father of the faithfull, without excluding the rest of the Fathers; which place, what ever they say, I take to have beene in Heaven, in which (we know) there are many stations, how ever they perplexe themselves in marshalling our lodgings there. And, against them all, of this opinion is S. *Augustine*, Commenting on the 85. *Psalme*.

Section 5.

The Curiosity of the Millenarij; with many other Curiosities more frivolous then necessary.

THe curiosity of the Millenarij, called by the *Greekes* χιλιασοι is worth your notice; who give forth, that after the generall resurrection, the godly shall enjoy a thousand yeares pleasures in soule and body on this earth, before the wicked be resuscitated, which they on earth did want whilest the wicked flourished; and that according to *Irenæus* his opinion. *lib. adversus hæreticos*. But they have even as much likelyhood and warrant for this out of holy Scripture, as others have for that other tenent, that after the resurrection of man, there shall bee likewise a renovation of beasts, hearbes, plants, *&c.*

If beasts, herbs plants, will bee renewed with man after the resurrection.

But

But to proceed in their subjects, what curiosity hath driven our Inquisitors to aske, if death shall bereave our most learned of all sence and insight in Sciences, that in Heaven they shall be in no better degree of happinesse then the rude ignorant; wheras in the first to the *Corinthians* and the fifteenth Chapter it is said, *alia est gloria lunæ, alia solis* ; better it were to know how to come there, then inquisitively to search what higher places there are there: but no question if the arguments drawen from contraries, doe hold, then sure in hell there bee diversitie of paynes, so in Heaven also there bee disparity of joyes : for in the house of the Lord are many mansions.

If there be degrees of glory in heaven.

Yea, but saith my curiosist, what language shall we speake in Heaven ? an idle question ; what other language should we have but *Hallelujahs, hymnes*, and praises to Him who sitteth upon the Throne ? This with many other scruples, and errors in inverting, perverting augmenting, derogating, transverting, throwing, wresting GODS Word, Will, Truth, and Decree, I passe, and apply my selfe to the *Physiologist* enquiring, if there was a world before this began ; if there shall be another after this. If there bee more then this which presently we inhabite; if there be more celestiall spheares then one ; what time of the yeare this world began, and when it shall have an end. All which, in my Title of the world I handle, excepting onely the multiplicity of heavenly orbes which I doe admit, refusing alwayes their Eccentrick and Epilicks ; as also I disallow the Eccentricks of the earth, as being all curiosities of small moment, and remit the Reader to the

What language in heaven.

Curiosity in Physicke to know whether there be more worlds then one.

If there was one before this.

found

found and true knowledge of the course, nature, and influence of the planets; which our curious Physitians, or Pseudo-Astrologers imaginatively do handle.

Section 6.

That the Planets and other Celestiall bodies have not that power over the natures of men and Women that Astrologers ascribe unto them: That the Starres are innumerable; Of the number and greatnesse of some in Via lactea; Where the center of the earth is; its Circumference. Of Etna, Hecla, Saint Patricks hole, and the like.

The Starres and heavenly lights force not our inclinations.

NEither can I bee induced to believe the inforcing power they ascribe to these planets over men and womens natures at the houre of their birth; they may well (I confesse) incline and helpe our propensnes, force them they cannot: for with *Homer latinized*;

Tales sunt hominum mores, qualis pater ipse
Iupiter auriferas lustravit lampade terras.

Or rather wth *Hippocrates* the *Lord* of their Art I think, against these sublime curiosities, that the heavens worke not upon the sublunary bodies of children, but by the mediation of the Air, which being alwayes in motion, and seldome alike at all times, cannot alwayes produce such and such like infallible dispositions proper to any one alone more then to others, in, and of that same time and place: the contrary whereof we see.

Mille

Mille hominum ſpecies, & rerum diſcolor uſus.
Velle ſuum cuiq; eſt, nec voto vivitur uno.

But what ever fall out, it muſt not be ſo much attributed to the domination of any Starre at the Nativity of him or her, that way diſpoſed, more then to others who ſucke in that ſame Air, but rather to the diverſity of mens inclinations of whom they are propagated; or to their ſtudies, educations, and affections, *&c.*

The inclination of Parents more mooveth children naturally, then the Starres doe.

Thus the extremity of Philoſophy is accounted folly, as the beſt rules in Phyſicke are; not but in caſe of extreme neceſſity, to uſe Phyſicke at all.

But yet, what extremity of folly is it in our Aſtronomers to give up the reckoning, yea even of the immoveable Stars, when GOD their Maker (bleſſed forever) holdeth them (in reſpect of men) as innumerable; as when He aſſured *Iacob* the Patriarch of the numerouſneſſe of his poſterity, He compareth their innumerableneſſe to the Stars of the heaven; when (howſoever theſe of *via lactea* alone are ſo miſcounted, that there are miriads beſides, millions of miſreckonings given up by the Arabs themſelves) *Reneus Herpinus* in his Apology for *Bodin* againſt *Augerius Ferrerius* his booke *de diebus decretonorijs* intendeth to give their ſupputation, if not infallibly, learnedly and Aſtrologically; yet too too curiouſly, in that place *fol.* 22. he divideth them in forty eight figures, and placeth twelve in the *Zodiack*, fifteene Meridionalls beyond the Ecliptick; twenty one Septentrionalls, and ſo forth; beſides ſo many obſcure ones, of which ſome of the biggeſt he inſtanceth to be 107 times bigger then the earth; ſome againe of the firſt and ſixth bigneſſe, eighteene times bigger,

The number and greatneſſe of certain Starrs in the *via lactea*.

obſerving

obſerving the diameter of the largeſt, foure times bigger then that of the earth. Whereas the diameter of the leſſer ſort is in compariſon to that of the earth, as fifteene, to eight, in reſpect of twenty one: all which hee prooveth againſt *Ferrerius* to obſerve a conſtant, equall, and not different courſe; of which Starres nevertheleſſe, their number, courſe, bigneſſe, force, *&c.* not onely *Ptolomeus* (the Primat and Patron of that Science) (although *Plotinus*, *Proclus*, and *Prophyre* have not adhered to his demonſtrations) in his worke, at leaſt in his Preface τῆς μαθηματικῆς συντάξεως ſpeaketh rather as of things ſooner remarked by the Ancients, then rightly underſtood by him or them either; But likewiſe his Commentator *Theon Alexandrinus* on the like ſubjects giveth forth, that in theſe and the like matters, he deſireth not his words to be taken for undoubted authorities: What have our *Topographers* wonne by inquiring, what can be in the centre of this Terreſtiall Globe, which he giveth up to be neere ſeven thouſand myles in diametrall thickneſſe? whether hell be there or not? and whether or not *Ætna* in *Italy*, *Hecla* in *Iſland*, Saint *Patriks* hole in *Ireland*, or that formidably burning Mountayne by the *American Mexico* (wherein at times as elſewhere alſo (if our Hiſtorians miſtake not) there are plaints and mourning voices to bee heard through) by the vents and Chimneyes of hell, as they give out.

Diverſities of opinions.

Or what advantage have our Vranographers, or our familiar deſcribers of the heavens, made (not to bee behind with our Geographers, who have given up the compaſſe of the earth? how ſoone a man may encom-

paſſe

passe it, as in the first Treatise of the secrets of nature may be seene: what have they advantaged (I say) by giving up the vastnesse of the firmament so unmeasurably large as they doe: for by their calculation, though a man ride fourty myles a day, yet shall he not see so much ground in many thousands of yeares as the firmament goeth about the earth in twenty foure houres: So learned *Clavius* calculateth in his Commentary upon *Sacroboscus*.

Via Lactea differently given up.

But withall to know whether or not the Moone be inhabited, or hath mountaines, vallies, and champion ground within her body, and so forth; and whether the rest of the planets as she, be likewise inhabited; considering (say these curious fellowes) that these vast bodies cannot be framed for light onely, if not for this use also: but being wearyed with these and alike more curious then profitable questions, I leave them.

Sect.

Section 7.

To search out the secrets of Nature allowable; if men be not too curious in them; Eudoxus wish; Plinius killed on the Mountaine of Vesuvius: Aristotle drowned in Euripus; Too much curiosity is a plague sent downe from Heaven on men; The Poet Simonides acknowledged his ignorance of GOD; *How the Heathenish gods were pourtrayed.*

The enquiry of the secrets of nature, convenient food for a curious Spirit.

IF any curiosity may be allowed, I thinke the inquiry of the hidden and abstruse secrets of nature are agreeable and pleasing for a curious spirit; provided that their curiosity carry them no further then to a reverent and respectfull admiration of the power of God, working in Nature by them.

But if once such curious and inquisitive braines doe transgresse these limits, and after the meditation of these things, doe begin to drawe out of the secrets of Nature that which is unprofitable, being knowne, and so doe become transgressors of the old Law, *Non altum sapere*, not to be too inquisitive; then I say their curiosities become *vitious*: such as this, was the curiosity of *Eudoxus*, who desired at the hands of the gods to be so neere the Sun as to discerne the matter of it, (which was in question amongst his fellow Philosophers for the time) although it should bee to the hazard of his life; Such

Eudoxus craved to be neere the Sunne although it should be with the hazard of his life, as that hee might knowe it.

curiosity

curioſity as this: coſt *Plinius* his life, while too curiouſly he approached to the top of the Mount *Veſuvius*, by Naples (which I did with the hazard of mine alſo) from thence to look down to the body of the hollowed hill to ſee if he might diſcerne the cauſe and matter of that fyre, which burſting up in flames now and then, had made it hollow within, for then being choakt with a flaſh of a ſuddayne flame, hee dyed ; So the river *Euripus* did requite *Ariſtotle* his curioſity with the like puniſhment, although not drowning or overwhelming him with waves, yet cauſing in him ſuch melancholy for not comprehending its nature, as procured his death !

We have warrant from holy Scripture, that too much curioſity to knowe things, is ſent downe upon men as a plague, in ſo farre, that *Herod* eſteemed Saint *Paul* diſtracted through his too much learning; and they are ſcarce otherwiſe, who thinke by their ſhallow capacity, to comprehend the height, length, and depth of GODS workes, which are ſo much the rather His, by how much the leſſe we underſtand them.

And it is obſervable that our beliefe is ſetled upon things incredible to humane reaſon ; to which a humble ſubmiſſion of ſpirit attayneth ſooner, then a curious inquiry.

Becauſe curioſity to know, is a plague, therefore our faith is ſettled upon things incredible to human reaſon.

Thus Saint *Auguſtine* eſteemed, GOD better to be adored, *bene ſentiendo, quàm multum loquendo*; In ſuch ſort, that *Simonides* the Poet, who was deſired to deſcribe God, required firſt one day to thinke upon the ſubject; and then another, laſtly a third ; and in the end confeſſed ingeniouſly, that the more he ſtudied it, the

further

further he was from comprehending it, and the more he ſearched into that Theame, the leſſe he underſtood it; which gave us well to underſtand how wiſely the *Ægyptian Prieſts*, *Indian Brachmians*, the *Perſian Magi*, the *French Druides*, and all the old Philoſophers and wiſe men did, whocauſed to mould and pourtrayte their gods with their fingers upon their lippes, to teach men (their Adorers) not to bee too curious inquirers after their Nature, or raſhly blabbe forth what ever they imagine of them, leaſt that being diſcovered, they ſhould have beene found in the end to have beene but men, either worthy in their time for warre or peace, and after their death, deified.

The Gods of the Ancients were pourtraited with their fingers upon their mouthes, and why.

Micat inter omnes
Iulium ſidus, velut inter ignes
Luna minores.

Whereas the Nature of our great *God-head* is ſo profound a gulfe, and hid myſtery, that as the Sun beames dazeleth our mortall eyes, being too ſtedfaſtly fixed upon them; even ſo doth over-curious inquiry after *God*, and ſuch other abſtruſe myſteries, obfuſcate the dim eyes of our underſtandings: And as the Sun cannot bee ſeene but by his owne light; So no more can *God* be knowne but by himſelfe.

Section.

Section 8.

Too great curiosities condemned; and a moderation to bee used in them prescribed.

THus then, as in Divine and heavenly mysteries wee should not be too curious, but should rather content us with what is revealed; So should we not in our worldly affaires busie our selves too curiously and perplexedly: For as *Gods* secrets are not discloſed to the higheſt and moſt eminent amongſt men, but to the meaner and ignorant ſort; even ſo fortune and chance of this world falleth and followeth not alwayes the wiſeſt and moſt curious, but on ſuch as for the moſt part doe not purſue them; and theſe we doe tearme, foole happy or more happy then wiſe.

As in Divine mysteries we should not be too curious: So should we not in any worldly busineſſe.

Dum vitant ſtulti vitia, in contraria currunt.

When I blame the extremity of curioſity as a maſter-vice, it is not for that we ſhould with the Stoicks, lull our ſelves aſleepe, and caſt off even allowable care concerning the events of our affaires in this life; as to remitt and put over all to deſtiny; which is no leſſe blame-worthy, then with the Epicureans, to eate and drinke, as if the morrow we were to die: For as the golden mediocrity, and commendable vertue conſiſteth betwixt extreames; even ſo (I ſay) avoyding both evills, this meant good may be admitted, to be curious

As we ſhould not be over-curious; ſo ſhould we not be leſſe curious with the Stoicks referring all to deſtiny.

after all such things as concerne our vocation and trade of life: And for this indeed wee have warrant; but so, that we referre the event of all to the alseeing providence, who best knoweth our wants, and can best helpe them.

Section 9.

How GOD *disappointeth the expectations of the most Curious; And that the most subtill spirits runne into greater errors then the meaner doe.*

As the most curious craftsman is not ever either the wisest or the Wealthiest; So the most curious heads are not they to whom God manifests his secrets.

I Wonder, since neither the subtilties of this present age, nor the wisdom of our predecessors, neither Prophets of old, nor preaching of new, no not their most curious inquiries could rippe up the causes and notions of things, wch it hath pleased the Everliving to worke both above and below the concavity of the Moone, in a manner to dazell mens eyes, and to make their profoundest wits stoope under the wonders of His workes; Why then should our curious Spirits rack their braines about the resolution of such questions, which, as they are difficult to be solved, so are they dangerous (I may say) and impious to be propounded.

And it is great presumption for mortall men to reduce under the precinct of humane sciences those things the knowledge of which GOD out of His infinite wisedome

wisedome hath thought fit not to impart to mortalls.

For as God is above nature, so worketh He after His owne will, either supernaturally, or else by some secret power of Nature unknowne to us ; To which point, the most subtile of all the Ancient Philosophers some times were driven.

God as hee is above Nature, so worketh he beyond Nature some times.

And yet these great spirits who could not content themselves but wth the speculation of such things, as fell not under the reach and capacity of the weaker, and meaner sort ; did sometimes in the meaner subjects stumble most miserably.

So while they ranne above the heavens, roaving and tormenting themselves with their numbers, matter, force, motions, sounding, depths and centre, yea, and turning the circumference of the earth, overskimming the Seas, saluting the Antipodes, and bringing novells from their Courts, and of their Caballs, dreaming with themselves (as *Archimedes* did) that they might remove the Globe of the universe out of its owne place, and turne it about, if they had whereon, and wherein to fixe their machins ; they in the end (I say) doe stumble, and fall in grosse absurdities ; like those men who peradventure, having sailed the better part of their lives, upon the stormy Ocean, and past her greatest dangers, may nevertheless at last be drowned in a little Brooke.

Great and sublime spirits stumble more vilely, then the meaner sort.

Medium tenuere Beati.

Section 10.

An inducement to the studie and search of the secrets of Nature; Of the Needle in the Sea compasse; Of the inundations of the River of Nilus; And from whence it hath its sourse and beginning; Of the severall dispositions of men; Why continuall burning hills and Mountaines doe not diminish, &c.

BVt on what more fertill and spacious a field can curious Spirits extend, and expatiate the wings of their fancies, then the discovery and searching out of the secrets of Nature, as in those things which are obvious to our outward senses, leaving those contemplative mysteries afore spoken of, to the omniscious Author of them, for when mans curiosity hath reached or rather dived into the depth of the secrets of the heavenly bodies and their changes; then the Creator, to checke (as it were) their curiosities and presumption, altereth that orderly course that they presumed to have gathered thereby; which made *Dionysius Areopagita*, seeing the Sunne Eccliped at full Moone, when our LORD and SAVIOUR suffered, contrary to their Astronomicall position, to cry out, that either the God of Nature suffered at that time, or the course of Nature was inverted, or the Machine of the universe

Dion: Areopagita's observation of the Eccliptse at our Saviours suffering.

was

was to dissolve; with other the like examples knowne to all that are versed in the Scripture. Now to speake a little more of the incertainty of these curiosities; *Mercator*, and other more moderne Geographers hold, that the needle in the compasse, doth vary more or lesse from the Pole, as the place of observation is more or lesse distant from the *Azorick Meridian*, from whence it hath its longitude; Whereas the more ancient tooke its longitude to be from the Canaries Meridian. Some againe, as *Herodotus*, will the River of Nilus, to take its source and beginning from the forked top of the Mountaine *Sienna* in *Ethiopia*, from whence (saith he) doe surge two admirable Currents, one towards the South and *Ethiopia*; the other toward the North and *Ægypt*; I call these currents admirable, because the Whirlepooles and bublings in these waters are so great, violent and absorping, that though a Boate were there tyde with most strong Cables, yet they would suck it in and ingurgitate it! Others will have its inundations and Increment, to issue from the hills of the Moone in *Arabia*, *A montibus lunæ Arabiæ-Australis*: whereupon such abundance of Snow falleth, that it liquifying and melting, runneth so abundantly and violently downe, that it procureth these wonderfull inundations: *Plinius* againe (if Sabell: mistake not *lib.* 3. *Eneid:* 1.) maketh its source and deboarding to flow from *Affrick* crossing Media, as the *Danube* doth *Europe*; Or else from Mauritania the lesser, instancing for possibility that the melted snow discending from thence causeth the overflowings in *Ægypt*; from whence (say they) serpenting and gliding through a vast tract of ground in

Opinions of the needle in the compasse.

Of *Nilus*, her sourse and inundation.

the bowels of the earth, that striving (as it were) to be refreshed with new aire, it bursteth out in *Mauritania Cæsariensi*, where it runneth the space of twenty dayes journey againe under ground; from whence it issueth againe and plentifully stretcheth it selfe through *Ethiopia*, with many meandres and turnings, and separateth *Ægypt* from the rest of *Africk*; where finally through most rockie, Precipitious and Declivous Mountaines with most hideous rumbling, and terrible noyse, it casteth it selfe down where the *Catadupæ* dwell; and running through *Ægypt*, disburdeneth it selfe, into the Mediterranean Sea. Others againe (not without great contradiction) doe variously picture out the severall disposition of men according to their severall Countryes, whereof read *Bodinus* in his sixth Chapter *lib.* 5. of his Republick: where he saith, that those who are borne towards the South are more humane, ingenious and affable then those towards the North: with severall other distinctions which hee setteth downe in that Chapter: Some too, give the reason why so many great hills in severall places of the earth doe incessantly burne, without great diminution of the earth or their greatnesse, to be because the Sea winding it selfe in by secret Conduits, doth continually arrouse, or water the Sulphureous vaine which subministrates fewell to their flame; as the endlesnesse of the combustible matter is the cause of the not diminishing of the earth: with many of the like, as may bee read in severall authors: Wherefore thus much for the contemplative and conjecturall curiosity; Now to the Practick.

Mens dispositions.

Burning hills and Mountaines.

Section.

Section 11.

Of Christopher Columbus his Practicall Curiosity in his discovery of the new World or America.

NOw lastly, to conclude this treatise with Practicall curiosity, in stead of many, I will onely touch that so fortunate and so much famed one of Columbus in the discovery of *America*; He was an *Italian*, borne in *Genoa*, whose most pregnant, curious and searching wit, farre excelled all that ever were before him, in the like attempts; This worthy *Columbus* (I say) imagining, that since the Globe of the universe, the celestiall Spheares, Aire, Waters, and all superior bodies were round, concluded with himselfe that the earth could not bee triangular, as in a manner it then was when hee knew no other lands, but *Europe*, *Africk*, *Asia*, but circular and round also; as the rest of the Elements; and so consequently that there behooved to be some vaste tract of land, yet unknowne, which should extend it selfe from South West to North West; Which conception of his he thus fortified.

Columbus first intention, and motive to his voyage.

That seeing of three hundred and sixty degrees, which the world containeth in longitude, there being onely one hundred eighty filled up with land; that the Almighty Creator would not have suffered from

Columbus his reason.

all beginning the waters to overflow all the rest.

But not content with this contemplation onely, he never gave over till he put the tryall of it in practise; wherefore in the yeere of God, 1492. aided and therefore furthered by the King of *Spaine*, he set to sea, directing his course to the *Canary*-Ilands (whereat from *Spaine* he first arrived) towards the Southwest: but having spent many dayes upon the Sea without sight of land, to the great toile, labour, and anguish of his men, who began to mutine amongst themselves and despaire of ever returning home, much lesse of attaining their adventure; he was driven to his wits end, whereupon politickly, (and as it were propheticall) he strove with all probabilities to assure them that within two or three dayes, at furtheſt, they should discover land; which the more confidently he undertooke, because (saith my Author) he had perceived the colour of the clouds then tending towards him, to bee more white and more purified like land-clouds, from whence they behoved to come, then those that meerely proceeded from the seas; which conjecture of his proved true; for it pleased God, that the third day thereafter they discovered this land they sought for, of which, with its length, bredth, nature, &c. there are whole volumes extant; and from this countrey it is, that the gold, money and ware be transported, which hath caused our dearths; all things in the dayes of our forefathers, being bartered one for another as common merchandises.

His voyage.

His policy.

The cause of dearth since *Columbus* voyage.

This mans spirit (no question) was warmed with a more celestiall fire than ordinary; who first of all befor

fore him, did both invent and execute so glorious a designe, and profitable an enterprise, as the discovery of a new world. Nevertheless, there hath not wanted some; who, to bereave him of this honour, doe gather out of *Plato's* dialogue twixt *Critias* and *Solon*, that there was some knowledge of this world in former times; because so it is, that the *Ægyptian* Priests of the City *Sais* reported unto him, that they had found in ancient Monuments, some mention of a terrible great Island, called *Atlantida*, which was opposit, or went off and on, with the straits of *Gibaltar*, of old called *Hercules Pillars*; but that it was taken away by *Deucalions* deluge, as we reade of *Sicily* to have beene rent from *Italy*.

Columbus's worth depraved.

Which admit were true: yet who, amongst the sonnes of men, before *Columbus*, did ever adventure to discover it? nay who so thinketh it to be an Island, mistaketh farre: for our moderne navigators have found it to be continent almost, and firme land; as joyning to the East-Indies on the one hand, and to those Lands under the two Poles on the other: moreover, whereas *Sicily* is removed from *Italy* but a very few miles (if ever they were conjoyned) as *Ireland* is from *Britannie*; this *America*, or, as they would have it, *Atlantida*, is distant from the mouth of the straights, where (they say) it was taken away, some thousands of miles.

His vindication.

I know too, how *Peter Martyr*, *cap.* 1. and first *decade*, attributeth the first discovery of this to a *Spaniard*, to defraud *Columbus* of his due praise and honour: and how some have gone about, to take away

from

Columbus denomination of *Americus* conferred on *Vespucius*.

from him the denomination of that Country, attributing it to *Vespucius*, calling him *Americus*, because he entered farther in the firme land than *Columbus*; who glad of his first discovery, made no long stay there: so that at the second setting out of a new Navie, this *Vespucius* went further in, *Egregiam verò laudem*: as if the honour were not the first attempters: so Sheepe beare wooll, and Oxen plough, although not for themselves. Some too, say, that *Columbus*, being a learned man, gathered this enterprize from some verses in *Seneca* in his *Medea*,

Here againe vindicated.

Another aspersion on him.

Venient annis sæcula seris.
Quibus oceanus vincula rerum
Laxet, & ingens pateat Tellus,
Tiphisque novos deteget orbes,
Nec sit terris ultima Thule, &c.

And why not? for this same (if it so was) argued the sublimity of his spirit; for who, I pray you, before him, ever marked or gathered the like from them to put that Theory and contemplation in practise? Then, sure it is, that none of the ancients, *Greeke* or *Roman* whatsoever, can in this be compared or balanced with him.

Section

Sect. 12.

The conclusion of this Treatise of curiosity; containing a singular curiosity of Livia, Tiberius Cæsars *wife.*

BVT ere I fully close up this Treatise, and where I might bring before you many; let me onely present you with one woman, whose singular curiosity was admirable, or (if you will) casuall; it is reported by *Cuspinian*, an ancient and famous Author, in the life of *Tiberius Cæsar*; that *Livia* being withchilde of *Tiberius*, fell into an inquisitive curiosity, to know whether the child she went withall should prove male or female: wherupon, repairing to *Scribonius* the Astrologer, she was advised by him to take an Egge from under a sitting Hen, and to hold it so long betwixt her hands, till (through the heate of them) the egge should burd and breake the shell; which accordingly she did, and thereout came a Cock-chicken: whereupon the Mathematician divined, that she should be delivered of a man childe; who as the bird was crested, should beare a crowne, and command over others: and so thereafter it happened.

Livias curiosity.

OF

OF

DIVINE PHILOSOPHY,

AND

MANS FELICITY.

Section 1.

The Sunne and Moone in the Heavens compared to the understanding and will in Man. Aristotles *definition of happinesse: The distinction of understanding and Will; and wherein ancient Philosophers placed their chiefe felicitie.*

AS there are two Lamps in the heavens which enlighten this lower world, the Sunne, and the Moone: So there are two principall faculties which rule in Man, the understanding and the will. For as the Sunne in the Firmament, is as Master of the rest of the Stars, giving life to the Earth by the mediation

The understanding and reason in man, is as the Sunne in the firmament.

Will, as the Moone which should have no light but from her Sun, reason.

ation of the Ayre; so this understanding ruleth the rest of the faculties of the minde; and as the Moone hath little light of her selfe (as being but a diaphanous body or susceptible of light) but what it borroweth from the Sunne, as the wife hath her lustre from her husband; so should not the will obstinately will any thing, but what the cleerenesse of the understanding foreseeth to bee conducible unto us; and what hath passed and bin sifted through the judgement; though otherwise we see it oft times come to passe. The Philosophers have a much disputed question, in what our happinesse consisteth, Whether in the actions of our understanding, or in those of our will (which indeed are nothing else but that which we terme contemplation and action) distinctly in any one of them, or in both conjunctly.

What happines is, according to *Aristotle*.

For seeing *Aristotle* defineth happinesse to bee an operation of the soule according to most perfect vertue, and that elsewhere he calleth it, the best and pleasantest thing that is; it cannot be then but one; because, what is spoken superlatively, is peculiar but to one onely: so it would seeme, that this felicity or happinesse consisteth onely in the operation of one of them and not of both; the one and the other way being both for the object and their operation the most pleasant and perfect things we have: by the operation of our understanding or intellect, we have the speculation and contemplating of God, and by the will his love.

By our understanding we know God, by our will we love him.

Howsoever by this it would seeme, that it consisteth in some one of the two onely; yet if we have regard to reason which enforceth the placing of it so,

or

or the Texts in Scriptures, where it is said, that our happinesse consisteth in the contemplation of God, or in his knowledge; we shall finde, that neither this perfect vision and knowledge of God can be separated from his love, nor his love from the knowledge of him. Wherefore it must consist of both joyntly.

But if by one of the two simply a man were made happy, then he could not totally, but diminitively be called so, which should not be thought; seeing nothing which is not entire ought to be attributed to felicity, because it should not be defective in any thing: whereupon we may conclude, that the perfect felicity whereof both the Philosophers of old have treated, and here now we handle, is neither divisively an action of the intellect according to prudence and wisdome, nor yet of the will, according to morall vertue, as *Aristotle* in his *Politicks* alledgeth; but one combined of both according to perfect vertue.

What, and wherein consisteth the old Philosophicall felicity, so much spoken of, being that whereof we now treate.

For if the question were betwixt the two, to which of them the prerogative and pre-eminence should appertaine, the matter were very ambiguous.

Section 2.

That our felicity consisteth in the actions of our will is confuted: Aristotles *opinion hereupon. A theologicall solution on it, seconded with a Philosophicall; and an agreement of both to solve the difference.*

IT is true, that the understanding goeth before the will, whereas will must waite for information from the understanding; seeing we cannot well will a thing we

we underſtand not, *Ignoti nulla cupido.* Beſides this, ſeeing our beatitude and felicity conſiſteth in the acquiſition and fruition of the end of the thing we aime at: certainely that cannot be by the act of our will, although it hath goodneſſe it ſelfe for the object; conſidering, that Will, almoſt even in the moſt regenerate is ſo depraved, that without the grace of God, we cannot ſo much as will any good thing, without the preceding judgement of reaſon, in regard that Will is defined to be a rationall appetite; conſequently it is, that even in thoſe who ſay that their will ſtandeth for a reaſon, yet in their judgement there wanteth not their judiciary election.

That our felicity cannot conſiſt in the actions of our will.

For S^t. *Bernard* in his worke of Grace and Free-will affirmeth; that Will, to what hand ſoever it turne it ſelfe, hath reaſon accompanying it; yet not that it is alwayes guided with true reaſon, but that at leaſt it is never without its owne reaſons. Theſe conſiderations being had, it would appeare, that this our happineſſe ſhould be placed in the underſtanding, and not in the actions of our will; except we take them ſo, as they have a reference to reaſon or underſtanding, in which they are rooted, or (at leſt) ſhould be.

It would ſeem that our happineſſe did not conſiſt in the actions of our reaſon and underſtanding, but in theſe of our will.

But if that be true on the otherſide, as certainly it is, which *Ariſtotle* in his *Ethicks* affirmeth, that our happineſſe perfecteth it ſelfe by the moſt noble operation of the moſt excellent part upon the excellenteſt ſubject; ſure it is, that the nobleſt part of a man is his ſoule, the moſt excellent faculty whereof is his free-will; whoſe moſt lively operation is love, and whoſe moſt worthy object is God: ſo that from thence it would follow, that our happineſſe conſiſteth

in

in the love of God, consequently in the operation of our will.

Now that the will hath the more excellent power then the understanding, is cleare; because that faculty (whose habits, operations and objects are more noble than the others) surpasseth the other: but so it is, that will surpasseth in all these, for knowledge and wisedome must give place to love and charity; because it were better never to have knowne God, then having knowne him not to love him. Reasons in favours of Will.

Besides all this, seeing the actions, which are done, doe depend upon the nature of the agent, the actions of the will, are so much more noble, then those of the understanding, in how far the Intellect may be necessitated by the object of it, and by forcible and convincing reasons, which it cannot withstand; whereas will is free and cannot bee forced; for then it should rather bee a nilling (to say so) then a willing.

Moreover in good Philosophy an argument taken from the nature of opposites is forcible: by the like reason I say then, if the understanding were better than the will, that then the contrary to the understanding were worse than the contrary to the will; seeing contraries are the consequences of contraries: but so it is not; for the contrary of will is worse than the opposite to the Intellect; because the hatred of God, which is opposite to the love of God, which dependeth upon the action of will, is worse than the ignorance of him. *Epist. 2. Pet. 6. 2.*

Now as the actions of the will doe surpasse them of the understanding, so doth the object of it; for

The actions of the will, the object of it seemes to bee more noble then these of the intellect.

goodnesse which is the object of the will excelleth verity the object of the intellect, as farre as deeds doe words; seeing verity is nothing else, but an adæquation or conformity of our conceptions with the words we utter.

Sect. 3.

Which of the three faculties of the soule, Understanding, Memorie, and Will, is the most excellent.

THe three principall faculties of mans soule, understanding, memory, and will, have their severall operations: the understanding playeth as it were the Advocate, memory the Clerke, and will the Iudge; but who knoweth not that the Iudge is alwayes above the other two?

To say then that will cannot well make election without preceding scisitation from the Intellect, is oft times true; but not alwayes: for sometimes without the information of understanding the will worketh, *Et nunquam visæ flagrabat amore puellæ.*

In a word, since the actions of the will are more noble then these of the understanding, it being true (as it is) that actions worke not but with a regard to their object: the object of the will being an universall good, and that of the understanding but a particular, under the restriction of verity; thereupon it followeth, that the object and action of the will (being the better) in them consisteth our happinesse.

Section.

Sect. 4.

Liberty and compulsion defined; that the will is prompted by the understanding, and that the adequate object of it proceedeth from thence; At what the will and understanding chiefly aime, proved to bee the glory of God.

ARguments in the behalfe of will, are grounded most upon the freedome of its operations, whereas these of the understanding are coarcted and limited as is said. Yet when all is spoken, our understanding wanteth not its owne liberty, at least in so farre as liberty is opposed to compulsion.

For if there were nothing compelled but that which is repugnant to the inclination of the thing, certaine it is that inclination to any thing agreeth very well with the intellect.

Now whereas it is said that the object of will which is good, suppoſeth that of the intellect, which distinguisheth the veritie of the thing: we must consider; that the will of it selfe could not have willed that, except first by the understanding it had knowne it to be such; so by this meanes the will hath no further regard to the object of it, in so farre as it begetteth felicity and happinesse, then the intellect hath; and although, by way of understanding, it bee made the adæquate or proper object of the will, yet it ceaseth not to bee the object of the understanding also; as having all things that are, and which may fall un-

Will and understanding how coinsident.

der our capacity, for object; and consequently, it shold be thought nobler and freer then the will, in regard of the boundlesse object which it hath in its extent.

This question of felicity consisting in will and understanding is coincident with that Theologicall question, of Faith & good workes.

But to leave the decision of this question to better Divines, seeing it falleth neere on the controversie of faith and good workes (by which together wee attaine salvation, as by the operations of will and understanding we attaine felicity)

I say, that all men naturally doe desire for the well of their will, to be happy and have contentment; and for the exercising of their understanding to have a marke to ayme at, which all Philosophers allow to be true; yet few of them came ever to the just point of both. It is necessary then to have a butt, and to have that good, and to have one, because GOD hath given us an understanding whose perfection is wisdome, and so one; to which as at a marke our understanding addresseth all her powers, and bendeth perpetually all her forces: againe to have it good; because hee hath given a will whose perfection is goodnesse.

And certainely, God who is wisedome and goodnesse himselfe, had an eye unto both these in the creation of all things: For seeing the Philosophers confesse, that nature doth nothing amisse, what should then bee thought of God, whom nature serveth, is but as a handmaid.

Now as GOD who is the beginning, middle and end of all things, hath had no other end in his workes but himselfe: Even so, we his Creatures, should have no other ayme nor end in our actions but him only, seeing we have both our beginning, continuing and ending

ding from him: Naturally all reasonable creatures doe wish well to themselves, and therefore propose some marke which they ayme at as their peculiar good: which can be nought else but the end for which man was created, to wit the glory of God, who hath made all things for it: So that in striving to come thither, hee attaineth to his owne proper end and good, which is the good hee aymeth at and naturally seeketh.

By this meanes if we find either the principle butt of mans ayme or our Soveraigne good, wee have found both, the butt hee shooteth at as the object of his understanding, and his good for the object of the will; hee therefore should apply all his endeavours to this end, and all his desires to this his good.

Section 5.

That all Philosophicall precepts have come short to demonstrate true felicity; Philosophicall distinctions to know what is good of it selfe in Sciences; yet all weake to illustrate wherein mans true happinesse consisted; which is Philosophically agitated.

IF man had persisted in his first integrity, hee had not beene now to seeke this felicity; for then his understanding clearely perceaved truths, and his will readily desired all good things.

But since the losse of the first, the ladders of the

The end of all Sciences is to know, which the Philosopher saith is good of it selfe

Philosophers in all their sciences have beene too short to lead us to the latter: for although their end is to know (which *Aristotle* affirmeth to bee good of it selfe, as by Morall Philosophy to discerne good from evill, and right from wrong; by physicke, health from sickneſſe; by the Mathematicks, equall from unequall proportions: by Astrology, the course and force of the Starres, and the celestiall signes: by Geography the length and compasse of the earth; by the Physickes the naturall principles and causes of things: by Metaphysicks supreme essences, good and evill spirits) yet none of all these could leade us to that right knowledge that I intend here.

For all their sciences did conclude only to us, that a mans happinesse consisted in a quiet and pleasant life, whose tranquillity is not interrupted with feare, want, sickneſſe and the like, but all these will not serve our turne; for their worth passeth no further than this life and the body, and so must perish; but true happinesse never hath an end.

The properties of our Soveraigne happinesse.

In the handling then of this felicity and happines it must bee remarked, that it is common to the whole species of mankind, and therefore as all are borne capable of that end, so all should tend to that butt.

Man feareth nothing more then his end (it being of all terrible things the most terrible) nor wisheth any thing more earnestly then ever to bee, and this Soveraigne good wee aspire unto is the end of man; beyond which we shall crave no more; for if there were any thing further to be craved, it could not be our end, because beyond the end there can be nothing; or if we craved any thing further, it could not be our Soveraigne

raigne good; seeing the greatest property of this beatitude is as to crave nothing further, so not to feare the losse of that we have, and withall to be content with that which we possesse.

The greatest property of our felicity is, as to crave nothing more, so not to feare the losse of that which wee have.

Of necessity then, that which must bee our Soveraigne good, behoved to be agreeable to the nature of man, particular to his species, yet common to all the individua of that kinde: And in so farre as it is our Soveraigne good, it must bee universall, perfect and everlasting. Thus having found out the nature of this our beatitude and felicity, let us a little run over the world, and al the Philosophers, to see, if either the one hath in her bosome, or if the other hath found it out by their curious inquiries.

Sect. 6.

That wealth and Honour cannot bee esteemed to be our supreme good or felicity, and the reason therefore; Philosophers confuted by their difference of opinions: Opinions of severall sects of Philosophers concerning felicity instanced to that effect.

THe things of this world which should seeme to make a man most happy are these two, wealth and honours; but alas! the one is winde, and the other clay; they content not all men, for all men attaine not unto them, and yet they that have them are not alwayes content, seeing they who have most, doe for the most part still crave more.

Wealth and honour cannot be our happinesse.

Lastly they perish and decay; and the feare to lose them is more galling then the pleasure almost to enjoy them is solid; by which meanes they cannot bee our soveraigne good, seeing these doe neither limit our wishes, nor fulfill our wills: they are not common nor permanent. Vigour, strength and beauty are but blossomes of youth, which decay with age.

The different opinions of the Philosophers upon this purpose.

As for the Philosophers, looke how many sects and diverse orders they had, so different were their opinions. *Aristotle* in his *Ethicks* alleadgeth two sorts of happinesse; the one civill, and Politicke, which consisteth in the prudency of our actions; the other private and domesticke, which may be thought contemplation: but both these leadeth us not to the end we hunt after, nor yet are they the end themselves. *Plato* indeed in his *Phædon* commeth nearer the truth, when he saith, that beauty, health, strength, wit, doe corrupt and make us worse; so they cannot bee our chiefe good, unlesse conjoyned with the Gods goodnesse, whereunto *Aristotle* (both in his first booke *De cælo*, and in his worke *De mundo*) agreeth. But I list not here to fill this short Treatise, with long and tedious allegations of authorities.

St. *Aug.* in the 19th. booke of the City of God, in the 1. chap. reports out of *Varro*, that there was in his dayes 288. different opinions upon that matter, but few or none that hit aright.

For as in Mathematicks, a little errour in the beginning becommeth great in the end; as the mistaking of one in a million in the beginning, falsifies the whole account in the end: so fared it with them; the further they went, the further they strayed. *Socrates* indeed

indeed came neere (by the Oracle of *Delphos* thought to be the wiſeſt amongſt them all; in reſpect he confeſſed, he knew nothing, becauſe he knew not himſelfe) when he ſaith, that if any man may be termed happy, it muſt be he who hath a cleere and undefiled conſcience, whoſe tranquill and ſecure ignorance is not perturbed with the worlds cares, but being void of coveting and feare, which moleſted others, neither needeth nor craveth any more.

Happineſſe wherein it did conſiſt, according to *Socra.*

Solon thinketh, that no man can be happy before his death, ſeeing the end crowneth all; conſidering belike, that as a Ship which hath ſailed the vaſt and ſpacious Seas, when to appearance all danger is paſt, may peradventure make ſhipwrack in the haven: ſo might a man whoſe life had beene paſt in pleaſures and ſecurity, make a tragicall end, as monuments of all ages can beare record: and the particular example of *Cræſus* King of *Lydia*, who in his dying houre called on the name of *Solon*, atteſting this ſaying of him to be true: and this ſame *Solon* hit the marke a great deale neerer than *Epicurus*, who placeth our felicity in the pleaſure of the body; whom the *Stoicks* deride, ſaying, that there was no roſe without its prickle, and ſo they ſetled it in the peaceable governement of morall vertues. From theſe againe the *Peripateticks*, and *Academick* Philoſophers doe differ, amongſt whom, divine *Plato* hath come neereſt the foreſaid marke.

The *Epicureans* and *Stoicks*, their opinions.

Section

Sect. 7.

The later Philosophers have aimed neerer the definition of true felicity than the more ancient; and their opinions specified. The finall and true scope of mans felicity, is illustrated with an exhortatory conclusion to all men for endeavouring to attaine unto it.

The latter Philosophers have refuted all others establishing their owne.

THE later Philosophers doe cleare this matter more fully; wherefore more worthy of citation, as *Seneca*, *Cicero*, *Plutarch*, *Iamblicus*, and *Porphyre*, all which have not onely refuted most wittily the *Epicures* and *Stoicks* touching their opinions, but have shewen that they and all the others were onely disputable opinions, and have concluded, that the beatitude of man consisteth in the knowledge and union of us with God: but little knew they that the first knot of our union with this God was untied, and therefore the question is harder now; how we are to be reunited againe.

To cast up here the opinion of *Aristippus*, who placed our happinesse in Venery; or of *Diodorus*, in the Privation of paine; of *Calypso*, and *Dinomachus* in Pleasure and honesty together: of *Herullus*, in the knowledge of Sciences, esteeming that thereby we might live both contentedly and prudently: of *Zeno*, in living according to nature; and so forth in the rest; might bee enongh to try the readers patience: seeing of these things which they esteemed happi-

nesse

neſſe, ſome were common to us with the Beaſts; others were not common to all, and ſo they failed in the rules of our felicity.

This being ſo, let us now at leaſt finde it out, and ſo in a word conclude. Briefly, as all happineſſe at firſt conſiſted in the union of man with God; ſo our happineſſe renewed, conſiſteth in the reunion of us with the ſame God, from whom we have fallen; by which reuniting, we ſhall both contemplate his face, and love him, in whom we ſhall have our joy accompliſhed, wherewith the heart of man can never here be ſatiated, beyond which we ſhall crave no farther: this felicity is not peculiar to the great ones of this world above the meaner, but equally obtainable of all who in humility of heart, and uprightneſſe of converſation, doe imbrace IESVS the Sonne of GOD, by whom onely we may be reunited, ſince he is the onely and ſoveraigne Mediator, bleſſed from all eternity.

Finally, what our true felicity is, and wherein it doth conſiſt.

The conſcience, which hath its aſſurance grounded upon this foundation, and rock of verity, may call it ſelfe truly happy, becauſe it hath the earneſt in this life, of that great felicity which is to come, whereby it poſſeſſeth it ſelfe in peace which paſſeth all naturall underſtanding (one of the ſureſt tokens of this happineſſe) neither perturbed with the terrors of the ſuperſtitious, nor yet with the careleſſeneſſe and lulled ſecurity of the Atheiſt; but in a ſweet harmony betwixt the two extremes, it retaineth the golden mediocrity.

By this ſoveraine felicity, a man liveth in tranquility, and dieth in peace.

This is that ſoveraigne felicity to my judgement, whereby a man liveth contentedly here, whatſoever befalleth

befalleth him; and dyeth in peaceable assurance of that happinesse which is to come; which soveraigne felicity we shall attaine unto, if by a lively faith wee embrace the Sonne, and live according to his will; and so put in ure and practise that great Canon of Religion, to live and beleeve well; espousing by that meanes our will and understanding together.

THE CONSONANCIE AND agreement of the ancient *Philosophers*, with our Christian Professours.

Section 1.

The difference betwixt the Physiologer and Physician; compared to that betwixt the Metaphysician and divine. Some of Plato's opinions not farre dissonant from our Christian: The multiplicity of Heathenish gods: That Plato came neere the definition of the Trinity.

AS, where the *Physiologer* leaveth to contemplate, there the Physitian beginneth; so where the Metaphysitians end, there the Divines commence their study, not to follow forth their doings, but, to refine their grosser rudiments; like cunning Painters, by the subtiltie of their Art, giving life, breathing,

A Simile. breathing, and in a manner, moving unto a picture, wch a more grosse Painter had but rudely delineated.

It was of old held for a truth, *Platonicos paucis mutatis fieri posse Christianos*: That with the change but of a very point, the Platonicke Philosophers might be brought to be Christians; from whence *Plato* was called Divine.

Difference betwixt Platonick and Christians.

Who so shall revolve the monuments of his workes, shall find that, not without reason, hee hath beene so styled: for all other sects of Philosophers, have but like men in Cimmerian darkenesse, gropingly stumbled, now and then, upon the nature of the true God-head; and every nation in those dayes, had their severall, and those strangely imaginarie Gods, distinguished in so many rankes, imployed in so many busineses, appointed to so many different and sometime base offices; that their number, in fine, became almost innumerable! In the meane time this man, soaring above them al, hath more neerly jumped with our beliefe touching the God-head. In so farre that *Amuleus* that great Doctor in Porphyre his Schooles having read Saint *Iohn* the Evangelist his proeme, was strooke with silence and admiration, as ravished with his words; but at length burst out in these termes: by Iupiter (saith he) so thinketh a *Barbarian*, meaning *Plato*; that in the beginning the word was with God, that it is this great God by whom all things were made and created.

Multiplicity of Gods, amongst the heathen.

Now that this is true, This much I find, in his Parmenides, concerning the nature of the God-head. That there are three things to bee established concerning the maker of all: which three must be coeternal, *viz.*

The Trinity shadowed by Plato.

That

That he is good; that he hath a minde or understanding; and that he is the life of the world.

Section 2.

Of Gods Creating and conserving of all things in an orderly order; Plato's Reasons that the world hath a life. Aristotles opinion of God; hee is praysed, and at his dying preferred before many doubtfull Christians.

THis King or father of all, which is above all nature, immoveable yet moving all; hath in him an exuberant and overflowing goodnesse! From the Father and goodnesse, the minde or understanding proceedeth, as from the inbred light of the Sun commeth a certaine splendor; which minde is the divine or Fathers Intelligence, and the first borne Son of goodnesse.

From this minde (the life of the world) floweth a certaine brightnesse, as from light; which breatheth over all, distributeth, yeeldeth, and conteyneth all things in life; So that the world which consisteth of foure principles, or elements, comprehended within the compasse of the heavens, is but a body, whose partes, as the members of a living creature, cohering and linked together, are moved, and doe draw breath by benefit of this life or spirit (as he thinks.) This Virgil in his sixth of the *Æneids* aymed at when he saith,

Principio

Principio cælum & terras, camposq; liquentes,
Lucentemq; globum lunæ, Titaniaq; astra
Spiritus intus alit, totamq; infusa per artus
Mens agitat molem, & magno se corpore miscet.

Plato his reasons why the world liveth.

By his opinion here, as all animalls and living creatures doe live every one by their owne life; so the world as of greater dignity then any of the rest, hath a more noble life whereby it moveth, then they: And in effect, many pithy reasons he produceth both in his *Epimenides*, in *Timæo*, and in the 10. Booke of his Lawes, to prove the world to bee an animall, both from the constant and perpetuall course of the heavens; from that naturall heat of the Sun, seeing the Sun and man ingender man, to which, as to all the Starres, he attributeth a soule, by which they live; but so, that as they are of a delicate and transparent body, so live they a most blessed life: yet not that they are moved with an other life then the whole world is.

For as in the body of man the soule, whereby our sinewes, bones, flesh, bloud and all, are moved is one and the same, notwithstanding all the members be not alike vivificated; so is it there.

For what reason is there (saith he) that man who is called a little world, and encompassed of the foure elements, as well as the great world is, should be said to live, and in the meane time to deprive the greater one of life; Seeing the motion of the heavens, and of her lights, the moving of the Seas, the seasons of the yeare, all keepe their equall and constant courses? Alwayes as *Plato* here before setleth a Trinity in the God-head, the Father; the minde, or *mens* which

is

is the Son; and the life of the world flowing from them as the Spirit, and as brightnesse from light: So in his *Timæo* he avoucheth that there is in the heavens one certaine *Ens*, which is ever alike unto it selfe, without beginning or ending, which neither needeth, nor taketh helpe of any; which can neither be seene by mortall eye, nor yet perceived by any mortall sense, but onely to be contemplated by our minde and understanding. So *Aristotle* in his Metaphysicks, and in his workes *De mundo*, esteemeth this *Ens*, sempiternall, unmeasurable, incorporeall, and individuall, not resting in this habitable world, but above it, in a sublime one, unchangeable, not subject unto any passion or affection; who as hee hath of himselfe a most blessed and perfect life, so without errour may it be said of him, that he giveth life unto all other things below; and it is to be observed, that as in his writings hee acknowledged this God, so in his dying-houre, he made his writings and words jumpe together. Which is so much the rather to be remarked: because, whereas many Christians did professe a sort of religion in their life-time, which on their death-beds they did disclaime: yet this man as he acknowledged God in his writings; so dying, he recommended his soule unto him in these words, *Ens entium, miserere mei.*

And particularly in his Booke of the Heavens, the *9. cap.* as is cleere; there (saith he) without the outmost heavens there is no place, vacuity, or end: because, those that are there, are not apt or meet to bee in place; neither yet maketh time them any older, nor are they subject to change, or alteration, being ex-

exempted from all passion, affection or change: they leade a most blessed and eternall life.

And in the 12. of his Metaphysicks, *cap.* 7. but more especially, *cap.* 10. *De unitate primi motoris.* In God (saith he) is age and life eternall, and continuall, which is God himselfe.

Section 3.

Platos *opinion concerning the Creation of the world; seconded by* Socrates *and* Antisthenes: *Opinions of* Plato, Aristotle, *and other Philosophers, confirming God onely to be the Creator of all things.*

AS the Philosophers doe agree with us herein, and in sundry other places about the nature of God, so doe they likewise; that this God made the world, and all that is in it, governeth it, and sustaineth it. And first *Plato* in *Timæo:* if, saith he, this world be created and begotten; it must necessarily be, by some preceding cause, which cause must be eternall, and be gotten of none other.

Now what this cause is, in his *Epimenides* thus he expresseth, I (saith he there) maintaine God to be the cause of all things, neither can it be other wayes. And in that dispute which is betwixt *Socrates* and his friend *Crito:* let us not be solicitous what the people esteeme of us, but what hee thinketh who knoweth equity from iniquity, who is above, and the only verity, who cannot be knowne, nor pourtrayed by any image or representation (saith he) because no eye hath,

hath, or can see him: who whilest hee moveth all things, yet abideth unmoveable, who is knowne to be mighty and powerfull, and who is onely knowne by his workes to be the Creator of this world: as *Socrates*, so his disciple *Antisthenes* acknowledged this: yea, *Plato* in *Epimenide*, maintaineth these Gods to know all things, to heare and see them: then, that nothing escapeth their knowledge, whatsoever mortall things they be that live or breathe. And *Aristotle* in his booke *De mundo*, proveth, that all things which it comprehendeth, are conserved by God; that he is the perfecter of all things that are here on earth; not wearied (saith hee) like man, but by his endlesse vertue indefatigable.

His opinion of God.

By all which, we may discerne, that hee acknowledgeth, (I may say religiously) this visible world, and all things therein to be created of God, as in the 2 Book and 10. *chap.* of his Worke of generation and corruption, at large appeareth. To which authorities we may adde these of *Galenus*, *lib.* 2. *De fœtu formando*; and of *Plato*, *Deum opificem & rectorem nostri esse*: and that of *Aristotle*, *Deum cum genitorem, tum conservatorem nostri esse, quorum principium, medium & finem continet.* Of *Theophrast*, *Divinum quiddam omnium principium, cujus beneficio sint & permaneant universa.* Of *Theodoret*, *Deus ut Creator naturæ, sic & conservator, non enim quam fecit naviculam destituet*: but chiefly *Galen*, *Eum qui corpus nostrum finxit, quicunque is fuerit, adhuc in confirmatis particulis manere.*

Now although in these particulars they agree both with us, and amongst themselves; yet in one point, as may be seene in the subsequent section, they differ.

Sect. 4.

Opinions of Plato, Ariſtotle *and ſome Hebrewes, concerning the worlds eternity. The conſonancy of opinions betwixt ſome ancient Philoſophers and* Moſes *about the worlds creation.*

Some of the Hebrews of the ſame mind.

Ariſtotle would conclude the eternity of the world, ſaying, that as it had being from before all beginning, ſo that it ſhould never have an end; to which opinions ſome of the *Hebrewes* (particularly *Leo* the *Thesbite*) ſeeme to aſſent ſo far, (howbeit they ſpeake not of the ever durancie of it) that after ſix thouſand yeeres expired, they underſtand it ſhall reſt one thouſand; which then ended, it ſhall begin of new againe, and laſt other ſeven. And ſo by courſe laſt, and reſt, till the revolution of that great jubile of ſeven times ſeven be out runne. At which time, then this elementary world, and nature the mother of all things ſhall ceaſe. To which opinion ſome way *Origen* in his worke περὶ ἀρχῶν, *Quod mundus cum tempore cæperit*, did incline.

Yet for all this, I ſay, *Plato* in his *Timæo*, ſpeaking of the procreation of the world, and of the vertues of the heavens, proved that the world had a beginning, and conſequently that it ſhall have an end. And that this is true (ſaith he,) it is aſpectable, and may bee ſeene, it may be handled, it hath a body: whence followeth, that it hath beene begotten, and ſeeing it

is

is begotten, it must bee by some preceding cause: Now, saith hee, as it is a great worke to search out this causer of it, so by our enquiry having found him, to divulge him unto the vulgar is not altogether convenient. Further he saith, that God willing to beautifie this world, as his chiefe worke, made it a living creature subject to our sight; containing within the inclosure of it, all other living creatures, according unto their severall species and kindes; whereas he approcheth neerer the minde and sense of our profession, than his fellow *Aristotle*: so directly in his *Timæo* he maintaineth, that as God created or begat the world, so he infused in it a procreative power; which by divine or heavenly heate, induced from above, might propagate and procreate every thing according unto the owne kinde of it, whether living or vegetable, whether above or below. And as the great Prophet, and servant of God, *Moses*, bringeth in God speaking unto his creatures after their creation was finished, *Increase and multiply*, &c. So *Plato* in his *Timæo*, bringeth in God speaking of the world, and all contained therein, in these words; All ye who are created by mee, give eare to what I am to say, I will give you seed and a beginning of being; wherefore, doe ye for your parts beget, and bring to light living creatures after your kinds: augment and nourish them with food, and when they shall cease to be, let the earth receive them back againe from whence they came. And to this *Aristotle* in his 2. Book *De generatione & corruptione, cap.* 10. giveth way where preferring in that place generation unto corruption, hee saith, that it is more worthy to be, then not to be;

Platos opinion of propagation and continuance of all things.

Platos termes not far different from *Moses* words.

seeing properly to be appertaineth onely unto God, and not unto creatures.

After the fabrick of the universe was accomplished, it should have beene for no purpose, if creatures had beene wanting in it: therefore lest God should seeme to have forgot it, he infused in every one, according unto their owne kind, a procreative power, by which the generation of things might be perpetuated.

But how did he this? saith hee, First generally, having spread abroad in the Heavens, and Starres his divine seed (for they claime a part in our generation) Then particularly, in every thing the owne proper seed of it: all which he avoucheth in the 12. Booke of his Metaphysicks, *cap.* 7.

Section 5.

Ancient Philosophers attributed the framing and continuance of all sublunary Creatures (as we Christians doe) unto God; with a recapitulation of severall consonancies betwixt us and them.

IN wch places and severall others of their workes, as these worthy men have ascribed the cause of the being of all things unto God; contrary to the opinion of these other frivolous preceding Philosophers; who imputed the cause of it unto the concourse of Atomes: So ascribe they the government of all these sublunary things unto the powers above, with

us

us Christians: and not unto chance or fortune, as these former Philosophers did.

Thus *Aristotle* in the first of his Meteorologicks; It is necessary, saith he, that this whole world which environeth the earth, should be continuated with the superior conversions, or revolutions of those celestiall circles, and bodies, which roll, and wheele above: because the whole vertue of it dependeth from thence. Neither is it probable, that he, who hath created the world, and all that is within it, should abandon and leave it so: but that as the frame of the fabricke was his, so likewise the guiding and ruling of it should be ascribed unto him also.

Which is more cleerely expresst by the said *Aristotle*, in his booke *De mundo*. Where he saith that it is an old saying, and left by tradition from our forefathers; that all things both are of God, and likewise sustained by him; and that there is no nature of it selfe, left unto it's owne Tutory able to attaine well being (for so I interprete *Salutem*) without his assistance or helpe: wherefore his opinion is, that God holdeth the beginning, middle, and end of all things. So *Theophrast* saith, that all things have a divine beginning, by which they are and doe subsist.

Dionysius likewise in his booke *De divinis nominibus* avoucheth, that nothing hath subsistance, but by the omnipotent power of God: with whom, *Theodoret*, that the governour of nature is the Creator of it: neither will he forgoe that Ship which hee hath built: Hence GOD is said by the ancients to bee divided through all natures, as if all were full of God; because his divine power spreadeth it selfe over, and is

seene in all his workes, how be it one way in the heavens, another way againe in the inferiour creatures; for in them also his power manifesteth it selfe.

Inde hominum pecudumq; genus, vitæq; volantum,
Et quæ marmoreo fert monstra sub æquore pontus,
Igneus est illis vigor & cœlestis origo
Seminibus----

Section 6.

Severall other opinions wherein the Ancient Heathnicks agreed with us Christians; Confirmed by the Testimonyes of their Poets.

Comparison of the old Roman Philosophers with the Roman Church now.

GOD then as he created all things, maintaineth and governeth them, both according to these Philosophers opinions, and ours; so they jumpe with us in this, that, to procure his greater favour and to shun his greater curse, we should adore, invoke, and sacrifice unto him not only the calves of our lippes, but reall sacrifices, as in those dayes under the law was done by *Aaron* and his successors under the Old Testament; and as they who were appointed to attend upon the Altar were sequestrated from amongst the rest of the people, so was it amongst them.

The Poets are full of the testimony of both these.

Now as particularly Processions were used for the good successe of their cornes, (as yet in the Roman Church

Church is observed) so had they particular dayes, which they esteemed more sacred then others. *Tibullus* in the first Elegie of his second booke perfectly particularizeth it.

Dii Patrii, purgamus agros, purgamus agrestes,
Vos mala de nostris pellite limitibus.
Neu seges eludat messem, &c.
Vina diem celebrent : non festâ luce madere
Est rubor, errantes & malè ferre pedes.

And as yet in the said Church there is invocation of certaine Saints, for such or such diseases, and for raine, whose relicts in such processions they carry about ; so the same Poet in the same Elegie acknowledgeth some Gods to be appropriated (as I may say) to this, or that use and place.

Huc ades aspiraque mihi, dum carmine nostro
Redditur agricolis gratia Cœlitibus
Ruracano, ruriscque Deos.

Lastly as in the new Roman profession there is almost in every family the Statue of some Saint, so finde I amongst the ancient to have beene the like.

Sed patrii servate lares ; aluistis iidem,
cursarem vestros cùm tener ante pedes.
Nec pudeat prisco vos esse è stirpite factos,
Sic veteris sedes incoluistis avi.
Tunc melius tenuere fidem : cùm paupere cultu
Stabat in exigua ligneus æde Deus.

That they acknowledged nothing to happen unto men by chance, but by the dispensation of the supreme powers, In that also they agreed with us.

Finally, I may say that as these Philosophers acknowledged punishments for sins to be inflicted upon

men

men both in their life, and after their death, ſo had they confidence of joyes to be reaped in the world to come for their good deeds, as *Socrates* in his Apologie for himſelfe at length declareth.

Sect. 7.

Of good and bad Spirits: and wherein the opinions of the Heathnicks agree with ours concerning good Spirits.

AS for their opinion concerning good, or bad ſpirits; I reade *Plato* and *Ariſtotle* come ſo neere ours, that you would beleeve, that they had collected their ſayings out of the holy Scriptures yet they doe ſtartle my beliefe, when they ſay that the continuall rolling of the celeſtiall orbes and their ſpirits doe make that harmony they ſpeak of in the heavens; I could much eaſier have truſted them if they had ſpoken any thing of Muſicke within the heavens by thoſe ſpirits, where wee have warrant indeed, that the bleſſed Spirits there, aſſiſting the preſence of him that ſitteth upon the Throne, doe ſing *Allelujas*, glory to God on high. Which good Spirits, as I finde them diſtributed in 9. ſeverall Quires or orders by *Dionyſius*, ſo in *Plato* finde I 9. diſtinct orders of good dæmones.

Yea the ſtory of the evill ſpirits is no cleerer ſet downe by our owne Writers, then they have it expreſſed in theirs.

The bleſſed ſpirits as I was ſaying, are divided by

Dionyſius

Dionysius in these Quyres, Seraphins, Cherubins, Thrones, Dominations, Vertues, Powers, Principalities, Arch-angels, and Angels; subdivided in two rankes. The Hierarchie of blessed Spirits.

The first of them assisting the presence of the Almighty.

The second is called inferior, because as it obeyeth the commandement of the first (as *Dionysius* in the tenth Chap. of his booke touching the heavenly hierarchie witnesseth:) so their imployment is much in the world: as the Lord his servants executing his wil, appointed either for whole countries, or particular persons.

Apparent accinctæ auræ flammæque ministræ,
ut jussa accipiant.

Sect. 8.

How neere the Ancients agree with us concerning bad spirits; and in what orders they were divided of old.

AS for the bad spirits who were banished heaven, (the first and best mansion) for their pride, they invaded the principality of this world, and so bewitched it by their craft, that there was no nation almost that they did not draw to their obedience under the name of God, and that so strangely, that every where after a like manner, they were worshipped and adored as Gods, both amongst the French Druides, and the remotest Gymnosophists of the.

the Indies, in shapes of Idols: howsoever since the comming of our Lord and Saviour Iesus Christ, both they and the old Sybillas have ceassed for a great part, although, yet in many places their sacrifices doe continue. And that same *Lucifer* goeth about yet as a roaring Lion seeking whom he may devoure.

So *Plato* by severall arguments proveth not onely that they are, but setteth down their division and power over the world; both generally and particularly. But leaving all, both *Deos majorum*, and *minorum gentium*, The gods, as they termed them, of greater, or lesser Nations; their Gods *Patrii* and *Penates*, ordained for the custodie of provinces, or families; their *Dii Lares*, which were propitious ones, or *Larvæ* the badder sort, with their *Genii*, good or bad Angels, ordained as they thought for the guarde and attendance of every particular person and so forth, I conclude this Treatise.

OF

OF SLEEPE AND DREAMES.

Section 1.

That nothing can subsist without sleepe or rest; Exemplified in the death of Perseus King of Macedon: The Primary and secondary causes of sleepe: That a sound conscience is a great motive to sound sleepe; Proved in the example of Thirois and his two Sonnes.

ALL motion tendeth to, and endeth in rest, except that of the Heavens; Which, in a perennall rotation wheeleth ever about! Wherefore men, beasts, Fowle, Fishes, after the dayes travell doe covet, and betake themselves to rest, as it is in the Poet.

Sleepe, maintainer of all living creatures

Nox

Nox erat, & placidum carpebant feſſa ſoporem
Corpora, per terras, ſyluæq; & ſæua quierunt
Æquora, cum medio volvuntur ſidera lapſu,
Cum tacet omnis ager, pecudes, pictæq; volucres.
----Et corda oblita laborum, &c.
Captabant placidi tranquilla oblivia ſomni.

Perſeus dyed for want of ſleepe.

This ſleepe is ſo neceſſary to the life of man, that for want of it many have dyed, as *Perſeus King* of *Macedon*, who being priſoner in Rome, and for torture being kept from ſleepe, there dyed.

Cauſes of ſleep.

Cauſes of ſleep are two fold, Primary and ſecondary: The true, Primary, Philoſophicall, and immediate cauſe of ſleepe may be ſaid to be this; the heart, the fountaine and ſeat of life, having much adoe to furniſh every part of the body with the ſtreames of vitall ſpirits, hath moſt adoe to furniſh the braines, which are the greateſt waſters of them, in regard of the many and ample employments it hath for them, as for Penſing, Projecting, conſulting, reaſoning, hearing, ſeeing and ſo forth; which functions of the braine doe ſo exhauſt the animall ſpirits, ſent up thither *per venas carotides*, through the *veines organs*; after by circulation in that admirable *Rete*, or net of the braine, they are there ſetled, that of all neceſſity either our life in the heart behooveth to ceaſe, or it muſt betake it ſelfe to reſt againe, for the recollection and drawing backe of her ſpent vitall ſpirits, to refurniſh the braines with a new *recrew* of them.

Secondary.

Secondary cauſes of ſleepe are divers; as exceſſive labour, agitation of the body, repletion, as by exceſſe of meates or drinkes, inanition, as by Copulation and

many

many more of this kinde, which doe ſo waſte the ſpirits, that of neceſſity, there behooveth a ceſſation to be for a time, that new ſpirits may be recollected for refreſhing of it; *Auſonius* wittily chiding his ſervants laſie drowſineſſe, imputes it to exceſſe of meate and drinke.

Dormiunt glires hiemem Perennem,
At cibo parcunt, tibi cauſa, ſomni eſt
Multa quod potes, nimiaq; tendas
---Mole ſaginam.

Adde to theſe cauſes the tranquillity of a ſound Conſcience; Whereupon it was, that the two Sons of *Thirois* (mentioned by *Quintilian*) upon moſt reaſonable judgement, were quitted from the murther of their Father, who was found in that ſame Chamber with them alone, and they both in a ſound ſleepe, the murtherer perchance having fled away: for it was reaſoned, no men, guilty of ſo heynous a crime, as *Patricide*, could ſleepe ſo ſoundly, as they were found to doe, by the diſcoverers of their murdered Father. But leaving examples of this or the former cauſes whereof every where are plenty, I proceed.

Thirois murther.

Section.

Section 2.

Examples of Kings and great Commanders, that upon the thoughtfulneſſe of ſome great exploite or encounter, have beene extraordinarily ſurprized with unuſuall ſleepe; and the reaſons thereof agitated.

WE reade that great men and Commanders upon the moſt important poynt of their exploytes and affaires, have ſometime fallen in ſo deepe ſleepes, that their ſervants and followers have had much adoe to get them to awake, the like formerly being never perceaved in them. *Iuſtinus* and *Quintus Curtius* in the life of *Alexander* the great relate of him: That, in the morning of that day appoynted for that memorable battell betwixt him and *Darius*, he fell in ſo deepe a ſleepe, and ſlept ſo long, that, on the very ſhock of the battell, very hardly could his favorite *Parmenio*, after two or three tryalls get him to awake. It is agreed upon that hotter conſtitutions are leaſt ſubject to ſleepe, and all his actions and proceedings marke him out to be ſuch an one; ſo it could not be his conſtitution that brought that ſleepineſſe on him; but he being then in hazard either to looſe or conquer a field, whereby both his Crowne, Countrey, and reputation lay at the ſtake (motives to keep a man awake) had ſo, no queſtion, toyled his minde and body in the right preparing and ordering of all things befitting a man of his place, for the encounter; that being at a reſolution

Alexander the great his ſleep.

reſolution, he gave himſelfe to ſleepe, which his former thoughtfulneſſe and paines did augment upon him; and not, as ſome would have it, the terror of his enemies forces: as *Marcus Anthonius* objected to *Auguſtus* in that Navall combat againſt *Pompey* in Sicilie, that he had not courage enough to behold the order of the battell; for indeed he fell aſleepe and ſlept ſo long till the Victory was his, which he knew not of till *Agrippa* with much adoe had awaked him. *Auguſtus* his.

But indeed I conſtrue both their courages rather to have beene ſo great (as their former and ſucceeding actions may witneſſe) that they diſdayned that the apprehenſion of ſuch hazards or accidents as might enſue ſo great encounters, ſhould any way ſtartle them from giving way to their owne inclinations, whether to ſleepe or wake, or doe or not doe this or that.

Section 3.

Alexander the great his ſound ſleeping, when hee ſhould have encountred Darius in battell, heere excuſed. Catoes ſleeping before his death, whereupon is inferred a diſcourſe againſt ſelfe-Murder.

BVt laying all theſe excuſes aſide; I cannot much marvell at this ſleeping of *Alexander*, he being ſo young in the flower of his age, and ſo more

Alexanders great fortune.

subject to sleepe ; besides being so puffed up with the fortunate successes of his affaires, which made him have so high a conceit of himselfe, (as to whom (sayth one) fortune gave up townes captive, and to whose pillow, whilest he slept, victories were brought ;) as I must admire that strange sleepe of *Cato* ; who, after *Cæsars* Conquest of the field at Pharsalia, despairing of the liberty of his enslaved Countrey, resolved to kill himselfe rather then behold the ensuing alteration which *Cæsars* government would bring with it ; He

Catoes sleepe.

then (I say) having put all his domestick affaires in order, expecting newes of the departure of his Colleagues from the Port of *Vtica*, fell in so sound a sleepe, that his servants in the next roome, overheard him to snort extreamly ; yet after that sleepe, which (as it should seeme) would have opened the eyes of any mans reason and understanding, so farre as not onely to abhorre his first so ill-sett resolution, but totally to extirpate a future thought of so damned an intention: he awaked so strongly confirmed in his former intent,

His death.

that forthwith he stabbed himselfe : And sleepe is sayd to mollifie and mitigate fury or rage in any mans minde, *Præter Catonis invictum animum.*

Now, though this man, (whom, his many other excellent vertues had made famous) and many other worthy men amongst the ancients, did imagine for the like deathes to be highly commended for courage; yet Saint *Augustine* (and with him every good Christian) reputeth it rather to be an infallible marke of Pusillanimity, and want of firme and constant resolution, to behold and withstand dangers, and inciteth us rather

A digression against self-murder.

to

to awaite death, which is the worſt that can befall us; then, to prevent the ſufferance of triviall croſſes by unnaturally Boutchering our ſelves: To which purpoſe *Cicero*, in preſence of this ſame *Cato*, ſaith: That ſince, we are placed here by our generall the GOD Almighty, as Souldiers in a garriſon; that it behooveth us not baſely to forgoe our ſtation, till it be his good pleaſure to call us off: So much for ſleepe, now to dreames which are the companions of ſleepe.

In his booke *de Senectute.*

Section 4.

Of Dreames, both Naturall, Accidentall, Divine and Diabolicall: Apollodorus dreame; Abrahams, Ioſephs, Pharaohs, Nebuchadnezzars, &c.

MAny more things might have beene brought in, in the former Sections, as of thoſe that walke or talke in their ſleepe, with the reaſons thereof, and illuſtrations to that purpoſe; but ſo many having handled thoſe theames, and I ſtudying ſo much as I can brevity, and to ſhun tautologies, I remit the Reader to them; and will now by the way touch upon dreames: And they are either Naturall, Accidentall, Divine or Diabolicall.

Diviſion of dreames.

Naturall are cauſed either by the Predominant matter, humor or affections in us: As the Cholericke, who

dreameth of fire, debates, skirmiſhes and the like; The Sanguine, of love-ſports and all joviall things; The Melancholicke on death, dangers, ſolitudes, *&c.* where the flegmaticke dreameth of Waters, Seas, drowning and the reſt.

Natural which

Theſe dreames which proceed from our Naturall or predominant affections are either of love, jealouſie, feare, avarice, envy, *&c.* by the firſt we may Preſage and judge of the ſickeneſſes which may enſue upon the ſuperaboundance of ſuch and ſuch humors; (becauſe they being the effects of the redundancy of theſe humors, have a connexion in Nature with them, as all other effects have in their cauſes.) By the latter dreams we may preſage, and judge of the affections, and paſſions of the mind, and ſo conſequently of the vices, conſiſting in their extreames; So the avaricious dreameth of gold, the lover of his Miſtris, the Iealous of his corrivall, *&c.* and if not ever, yet for the moſt part, this happeneth true or at leaſt in part.

Accidentall.

Accidentall dreames, are cauſed either by dyet, by feare or joy conceaved in the day time; or the propenſe deſire to have ſuch or ſuch a thing to come to paſſe, and the like: Thus oft times a vicious ſoule will figure to it ſelfe in dreames the terrors that it feareth: As *Apollodorus*, who dreaming that the Scythians were fleaing off his skinne, thought that his owne heart murmured this unto him: Wretched man that thou art! I am the occaſion of all theſe thy evills which thou endureſt.

Divine.

Divine dreames are thoſe, whereby it pleaſeth God to give either a warning or inſight of things to come;

ſuch

ſuch the Lord ſent on Abraham the fifteenth of *Geneſis*; and on Ioſeph in the firſt of Saint *Mathew*; that too of *Pharaoh*, *Geneſis* forty one: Of *Pharaohs* Butler, and Baker, *Geneſis* forty: of *Nebuchadnezzar*, &c.

Diabolicall dreames cannot fore-ſhew any thing unto any man; they may give a ſhaddow or repreſentation of things paſt unto us, but not otherwiſe: Then ſeeing there is little connexion of things paſt and to come, therefore can there be no foreſight by them; for although the Divell knoweth many things, and at ſome times even ſpeaketh the truth of things to come, thereby to inveigle our credulity, when in effect he only lyeth to deceave us; yet unto them we ought to give no regard or faith. Now how Naturall or accidentall dreames can portend or foreſhew future things, it is doubted: indeed *Cardan* ſetteth downe the ὅτι how, but not the διότι why, any wayes cleerely enough, to my underſtanding. Diabolicall.

For the dreames that GOD ſendeth upon a man, I underſtand to be myſticall, and portending ſomthing touching his ſervice: Our ſpirits it cannot well bee; for when we are awake, we cannot foreſhew any thing to come, at leaſt without præmediration, no not by any Philoſophicall ground whatſoever. Neither can they be moved by the divel, for he is a deceaver, and all his workes impoſtures: It muſt be then ſome other ſpirit, that infuſeth theſe accidentall dreames whereof we will inſtance examples heereafter; to my mind, it muſt be rather ſome peculiar extraor dinary inſpiration in the dreamer for the time, than *Anima Mundi*,

or

or *ſpiritus univerſitatis*, although many learned men aſcrybe ſuch dreames to it particularly.

Severus dream of *Pertinax.*

An example of this kind I read in *Herodian*, where it is reported, that the Emperor *Severus* dreamed he ſaw *Pertinax* mounted upon his richly Caparaſſoned Horſe, and receaved as Emperor by the Pretorian Souldiers, but that the Horſe ſtraight wayes flung *Pertinax* off his backe, and came ſtooping to *Severus*; who reaching the Horſe by the mayne forthwith mounted him, and was by the ſame Souldiers receaved and admitted Emperor; which indeed came ſo to paſſe.

Section 5.

The Emperor Severus his dreame of Pertinax; which he cauſed to be molded in Braſſe; An admirable dreame of the Emperor Henry the fifth; Cicero's of Octavianus. That beaſts dreame, but hard labouring men ſeldome; and the reaſon thereof, &c.

Severus cauſeth to be caſt the manner of his dreame in braſſe.

WHereon hee cauſed the whole drift as it happened, to be caſt in braſſe, of which at length in *Sabellicus Ænead. 7. lib. 5.*

Henry the 5th. his admirable dreame.

To which I may ſubjoyne that dreame of the Emperor *Henry* the fifth, who being grievouſly pained with the ſtone, dreamt that Saint *Barnabas* had cut him and gave him the ſtone in his hand; which when he awaked, to his great Ioy he found to be true, if we may be beleeve *Cuſpinian.*

Likewiſe that Dreame of *Cicero* may bee ranked amongſt theſe: He dreamt that there appeared a Boy before

before him who once ſhould be Emperor and Maſter over Rome; the next day, after his accuſtomed manner paſſing through the publicke market place, and eſpying *Octavianus Auguſtus* a little boy playing the part of a Commander over the reſt of his companions, he called to minde the feature and ſtature of the boy who the night before had appeared to him in his ſleepe, and findiug that in every lineament he aſſimilated *Octavianus*, took him by the hand & brought him before all the people that were there aſſembled, preſented him, and told them that one day that boy ſhould command over them, which thereafter came to paſſe. *Cicero's dreame of Octavian*

Now dreaming is not proper to men only when they ſleep, but to beaſts alſo; for War Horſes accuſtomed to allarmes, and skirmiſhes, are obſerved to ſtart as afrighted, and ſometime to neigh; Spaniels, Hounds and other hunting Doggs are knowne with their voyces to hunt in their ſleepe.

------Iam Iamq; teneri
Credit, & extento ſtringit veſtigia Roſtro.

But ſleeping men doe not at all times dreame, wearyed and labour-toyled bodyes doe never finde them.

Dulce ſopor feſſis in gramine.

Againe,

Sopor virorum dulcis agreſtium.

Becauſe nature hath enough to doe to disburden and diſgeſt the drowſineſſe, wherewith their whole ſenſes were clogged.

But I will adde no more of dreames, then that which *Cato* long agoe hath warned us of,

Somnia ne cures, nam mens humana quod optat

Et ſperat vigilans, in ſomnis vidit id ipſum.

That this is love, beſide dayly experience we have warrants out of our moſt famous Poets.

In ſomnis eadem pleroſq; videmus obire,
Cauſidicos cauſas agere, & componere lites,
Induperatores pugnare & prælia obire.

The reaſon hereof being that the object of our ſenſes doe not only move them while they are preſent at a buſineſſe, but alſo leaveth ſome certaine Idea imprinted in the minde; which rancountring with our drowſie phantaſies amidſt our ſleepes, produceth theſe confuted dreames above ſpoken of.

FINIS.

OF

VARIETIES,

The fifth Booke.

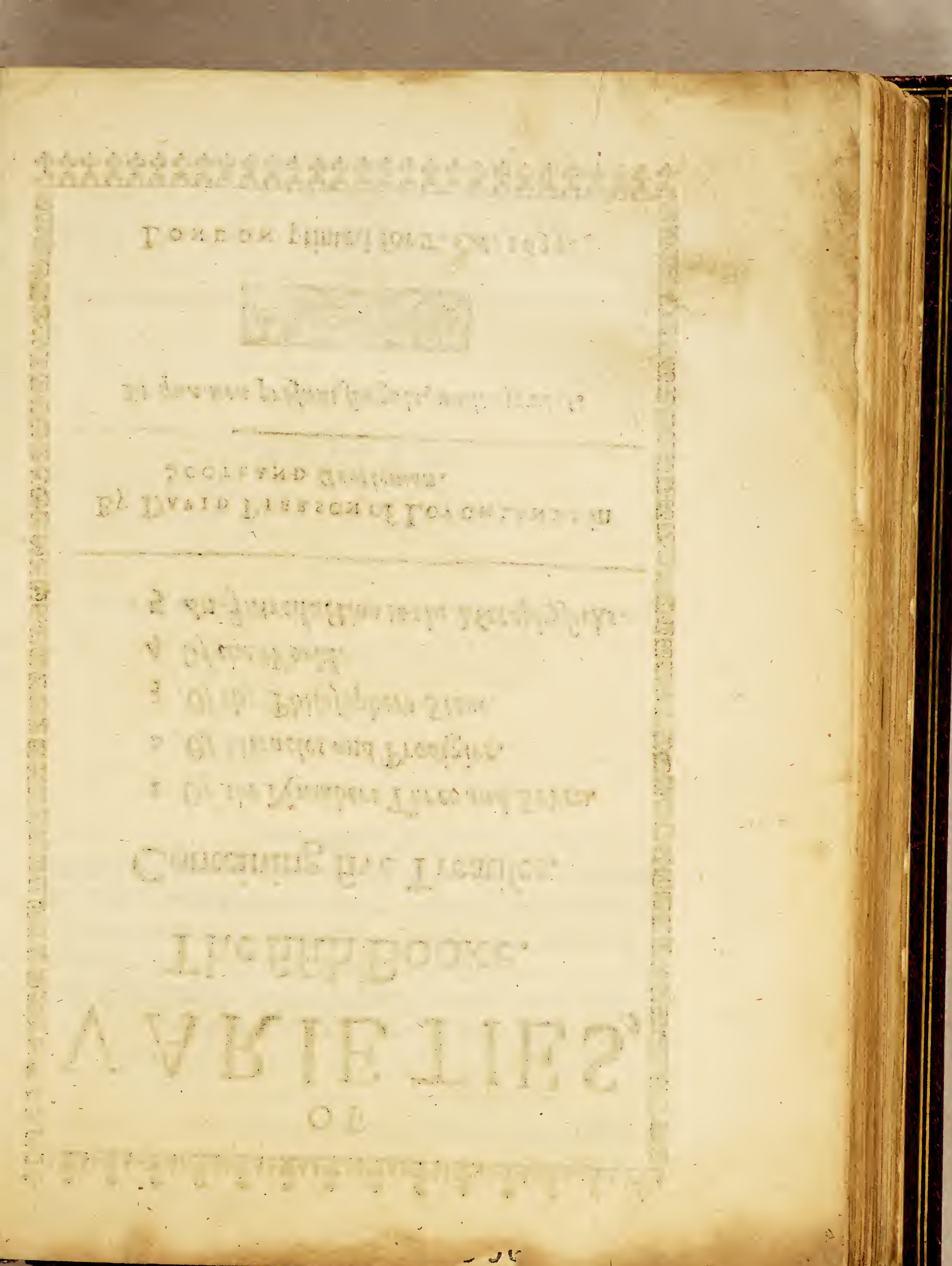
Conteining five Treatiſes.

1 *Of the Numbers Three and Seven.*
2 *Of Miracles and Prodigies.*
3 *Of the Philoſophers Stone.*
4 *Of the World.*
5 *An Jntroduction to the Metaphyſicks.*

By DAVID PIERSON of LOVGHLANDS in SCOTLAND *Gentleman.*

Et quæ non proſunt ſingula, multa juvent.

LONDON printed for *T. A.* 1635.



TO

THE RIGHT Honourable, my noble good Lord, THOMAS Lord BINNING, &c.

My ever honoured good Lord,

NO so base attribute but might justly be vented against mee, had I so farre suppresst Your Lo. most generous goodne, and many singular favours conferred on my demerits, as not in this dutifull dedication, sacrificed to the altar of your larger merits, present this small offering of my greater good will and affection: I will not implore your propitious acceptance, for your noted and courteous affability to all, and gracious acceptance of meaneſt gifts, animates me to this presumption. What your knowne vertues (my Lord) are, would

require a more accurate and tighter Pen than mine to delineate; yet were not the world so given, that even truthes themselves are taken for palpable flatteries, I could tell with what universall applause and commendation your younger vertues and generosities in your travels made even strangers to honour and admire you! I could tell what great hopes our Countrey hath already received, that you will not onely to the Lands and Possessions of your worthily noble Father, succeed as Heyre, but to his singular Knowledges and Vertues also; which have already so fairely budded and now ripen so hopefully, that none can doubt the successe; I could tell too of your Prudence, Courage, Charity, and your other ample endowments; but I am so full of admiration of your every goodnesse, that what the Tragedian said of Cares, I may of my affections, Leves loquuntur, ingentes stupent: *Accept then (my deare Lord) for expression of all, this little Booke; which, how voluminous and accurate soever it could be, were due to your high deservings from me; That Your Lo: in it, is mixed with so noble Partners, I hope for pardon not reproofe, which likewise intreate for all my other trespasses and boldnesse with your Honour, alwayes humbly desiring the continuance of your Noble Love and Favours to one, who would no longer wish to live, if it were not both to live and die*

Your Lo: most faithfull and
entirely-affectioned Servant
D. Pierson.

OF VARIETIES,

The fifth Booke,

Conteining five Treatises:

1 *Of the Numbers Three and Seven.*
2 *Of Miracles and Prodigies.*
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Et quæ non prosunt singula, multa juvent.

LONDON printed for *T. A.* 1635.

OF

VARIETIES,

The fifth Book.

OF THE NVMBERS THREE and SEVEN.

SECT. 1.

Treating briefly of Numbers in generall.

GOD at the Creation is said to have made all things in number, weight, and measure, as indeede they were in a most exact order, symmetrie and proportion.

Antiquity have remarked many things by severall Numbers, as *Pierus* in his *Hierogliphicks* at length

Antiquity superstitious in the observance of numbers.

relateth, *Pythagoras* is said to have esteemed much of the number of five, as composed of the first even and odde, numbers two and three:

Numero Deus impare gaudet.

Severall men have severally treated of severall numbers, but I have here made choyce of three and seven, as finding manifest and most memorable things in all Sciences comprehended within them; which thus pack't up together, cannot but bee infinitely delightfull, and most helpefull to the memory of every Reader.

The use of number.

SECT. 2.

Conteining variety of memorable things comprehended within the Number of three, as of Heaven, and Hell, and of Poeticall fictions, and some observations amongst the Romans.

THree of all Numbers should be held in greatest veneration.

The Persons of the God-head are three, Father, Sonne, and Holy Ghost, which is that most blessed Trinity.

Three Heavens.

There are said to bee three Heavens; Aëriall, which is betwixt this and the starry Firmament: Etheriall, that great *Primum Mobile* encompassing the first: and Empireall, or Cristalline Heaven,

ven, the habitation of the blessed Spirits, whither (as is supposed) Saint *Paul* was ravished. There are also three Regions of the Ayre.

As three heavens, so there are said to bee three Hels; The Grave, the place of torment, and the anxiety of a vexed minde. Three Hells.

Saturne had three Sonnes, *Pluto*, *Neptune*, *Iupiter*. *Iupiter* had his three-fold Thunder, *Neptune* his three-forked Trident, and *Pluto* his three-headed *Cerberus*.

Diana, according to the place where shee was, hath three severall names; in the Heavens, *Luna* or *Lucina*; on Earth *Diana*; in Hell *Hecate*. Heathnick superstitions.

There were also three Graces, *Aglaia*, *Thalia*, *Euphrosine*: and the *Muses* are numbred by thrice three.

Three Iudges are fained by Poets to be in Hell; *Minos*, *Æacus*, and *Radamanthus*.

Three Furies Daughters of *Acheron*; *Alecto*, *Tysiphone*, *Megera*.

Three *Hesperides*; *Æagle*, *Arethusa*, *Hesperethusa*.

Three *Syrens*; *Parthenope* for wit; *Ligia* for vertue; and *Leucosia* for beauty:

Aspectu verbis, animi candore trahuntur
Parthenopes, Ligiæ, Leucosiæque, viri. Poeticall fictions.

Three Sisters of the Destinies called *Parcæ*; *Clotho* draweth out the thread of our lives; *Lachesis*, spinneth or twisteth it; and *Atropos* cutteth it at our deaths:

Clotho Colum bajulat, Lachesis net, Atropos occat.

Gerion was ſaid to have had a three-fold body: Three ſhaped *Chymæra*; *Sphinx* was fained to have three ſeverall Viſages; and three fatidick or prophecying *Sybeles*, & many the like amongſt Poets:

Martia Roma triplex, Equitatu, Plebe, Senatu.

Amongſt the *Romans* were three kindes of Flamens or Prieſts, their Deales, Martiales, and Quirinales.

They had alſo three kindes of Prophets; *Aruſpices*, who divined by ſacrifices on Altars; *Augures* by the chirping of Birds; and *Auſpices*, who foretold the events of things by beholding the entrals of birds.

They divided every of the twelve moneths in three; *Ides*, *Nones*, and *Calends*.

The *Romans* alſo, for recovery of the *Greeke* Lawes, ſent three men, *Spurius Poſthumius*, *Servius Sulpitius*, and *Aulus Manlius*: And amongſt them three were noted for obteining greateſt ſpoyles from their Enemies, *Romulus*, *Coriolanus*, and *M. Marcellus*.

Romes three-fold government was firſt by Kings, then Conſuls, laſtly Emperours.

SECT. 3.

SECT. 3.

Conteining some Theologicall and Morall precepts and observations, redacted under the number of three.

THere are three Theologicall vertues; Faith, Hope, and Charity; and three principall Morall vertues; Temperance, Iustice, and Fortitude. Theologicall and Morall Vertues.

Three things incident to man; To fall in sinne, which is humane; to rise out of it againe, which is Angelicall; and to lye in sinne, which is Diabolicall. Of Sinne.

Three things in all our actions are to be observed; that our appetite bee ruled by reason; that neither lesser nor greater care bee taken about any thing then the cause requireth; and that things, belonging to liberality and honour, be moderated. How our appetites are bridled.

There are three principall duties belonging to every Christian in this life; to live in piety and devotion towards God; Charity towards our Neighbours, and Sobriety towards our selves. Christian duties.

There are also three subalterne, and lesse principall; to use respect to our superiours, clemencie to our inferiour; and gravity to our equalls.

Wee offend God three wayes, with mouth, heart, and hands, (by hand heere I understand all our senses;) for which to him wee ought to make amends How wee offend God, and how to appease him.

three

three other wayes, by Confeſſion, Contrition, and Satisfaction.

Chriſts humiliation and exalation.

Three degrees of Chriſts humiliation; his Incarnation, life, and death: three of his exaltation; his Reſurrection, aſcention, and ſitting at the right hand of the Father.

There are three things incident to unregenerate Nature; Ambition, Avarice, and Luxury.

Howv to knowv God.

There are three wayes to know God: Negatively, whereby what evill is in man, is denied to be in God: then by way of excellencie, whereby, what good is in man we acknowledge to be in God moſt eminently above man, and in the abſtract of it: Laſtly by way of cauſality, whereby we acknowledge God to bee the efficient cauſe of all things.

Gods word was written by Prophets, Evangeliſts, and Apoſtles.

David.

David for numbring his people had choyce of three things, Plague, Sword, and Famine.

Salomon.

Salomon had choyce of three bleſſings; Wiſdome, Wealth, and length of dayes.

Mans Enemies.

Three great enemies continually aſſaile man: the Devill without him, the World about him, and the Fleſh within him: Againſt which hee ſhould be armed with theſe three weapons; Faſting, Praying, and Almes giving.

Love.

Love three fold; Divine, Worldly, and Diabolicall. Moreover we are tyed to a three-fold Love; Of God, our neighbour, and our ſelves.

Of Feare.

A three-fold feare alſo poſſeſſeth us; a Naturall feare, for our lives and goods; a Civill, for our honour

nour and fame; and a Conſcientious for our ſoules.
So wee are ſaid to ſee with three kinde of eyes; of our bodies, reaſon, and faith.
The Popes Mitre is engirt with three Crownes.

SECT. 4.

Of Politick Government: Of living Creatures; and of duties belonging to men of ſeverall profeſſions, as Phyſicians, Iudges, and Lawyers, &c. with ſome Phyſicall obſervations, all Tripartite.

THere are three kindes of Government; Monarchy, of Kings; Ariſtocracie, of Nobility; and Democracie of Commons, as our State conſiſteth of Clergie, Nobility, and Commons. Degrees of government.

Phyloſophers, Phyſicians, and Divines doe ſeverally preſcribe dyet for living to all men; the firſt a moderate, the ſecond a ſparing, the third a moſt ſtrict continencie. About dyet.

There were principally three kinde of Creatures ordained for the uſe of man, living in three ſeverall Elements, Fowle in the Ayre, Beaſts on the Earth, and Fiſh in the Sea. What Creatures God ordained for mans uſe.

Three kinde of living things, Intellectuall, Senſitive, and Vegetable; as Men, Beaſts, and Plants.

There are three Principles of Phyſick; Matter, Forme, Privation.

There are alſo three things requiſite in a Phyſi- Phyſicians.

cian; to restore health lost, to strengthen it being weake, and to preserve it when it is recovered.

Lawyers. Even so the Lawyers parts are three-fold; to recover meanes lost, to preserve them when they are purchased, and to purchase such onely as wee have right to; which three the Canonists performe, in purchasing of Benefites, recovering those which are lost, and in conserving those which are once obtained.

Iudges. A Iudge should have these three qualities; not to be delaying, mercenary, nor ignorant.

Division of Lawes. Lawes of men are three-fold; of Nature, of Nations, and of Cities; and the Lawes of God are, Morall, Ceremoniall, and Iudiciall.

Three things chiefly are to bee observed in Iudgement, Examination, Consultation, and Sentence.

Chirurgian. Three things too are requisite in a good Chirurgian; an Eagles eye, a Lyons heart, and a Ladies hand.

Oratour. Three things required in an Oratour; to speake fitly, ornately, and copiously; or as some will have it, demonstratively, deliberatively, and judicially: and in every of these, the Circumstances are to bee observed, Time, Place, and Persons.

Civilian. There are three objects of the whole Civill Law, Things, Persons, Actions.

Poets. Amongst Latine Poets, three kindes of Verses are chiefly used; Heroick, Elegiack, and Lyrick; under Lyrick are comprehended Saphick, Iambick, and the rest.

Three

Three ſpecies of ſickneſſe wherewith we are affected ; which are of quality, humour, and ſubſtance ; which againe reſolve in three kinde of feavers, Simple, Corrupt, and Peſtilentious : Simple feavers too are three-fold, Quotidian, Tertian, Quartan : Corrupt or Hectick Feavers three-fold ; the firſt being in the conſumption of our ordinary humour ; the ſecond in our Balmie or oyly ſubſtance, both curable ; the third which conſumeth our noble parts called *Maraſmus*, paſt cure. Phyſicall obſervations.

Of all meaſurable bodies there are three dimenſions ; length, breadth, and deepneſſe.

Three things eſpecially the *Perſians* taught their children ; to ride, ſhoote, and ſpeake truth. Cuſtomes amongſt the *Perſians*.

The day is divided into Morning, Noone, and Evening.

Every Moone hath her increaſe, full, and wane, and *Poſt triduum mulier faſtidit & hoſpes & imber.*

SECT. 5.

Memorable obſervations comprehended within the Number of Seven, as of the age of the World, and mans generation.

THe Number of Seven by many learned men hath beene held the moſt myſticall, and by ſome entituled the moſt ſacred of Numbers, as on it many moſt remarkeable matters have hap-

pened : God created the world in six dayes, and rested the seventh; and therefore amongst the *Jewes* every seventh moneth, and seventh yeare were appointed to rest : and in how great reverence was their great Iubilee, which every seventh yeare being multiplied by seven, fell out every 49 yeare?

The age of the world is divided into seven; the first from *Adam* to *Noahs* flood; the second from that to *Abrahams* time; the third from *Abraham* to the freeing of the people of *Israel* from their Captivity in *Egypt*; the fourth, from their comming out of *Egypt* to the building of *Salomons* Temple; the fifth, from that to the *Babylonish* Captivity, at what time *Ieremie* writ his *Lamentations*; the sixth, was the time betwixt that and the comming of our blessed Saviour : the seventh from our Saviours time to the end of the world. And some have given forth, that the world shall take end the six thousand yeare of its age, and rest the seventh.

The first seven dayes after conception, the seede of man in the wombe becommeth Embrion, the seventh weeke there-after it becommeth *fœtus* and quickneth; and the seventh moneth after that it is *partus*, and is brought into the world.

SECT. 6.

SECT. 6.

How the seven Planets are said to rule severally over the seven ages in the life of man.

ASTrologians, who will have the life and constitution of man to depend on the force of the starres and celestiall bodies, (no wayes depriving God of his Soveraigne and absolute power) have divided the age of man into seven parts, ascribing to every part one of the seven Planets which ruleth over it. The first they call Infancie, over which they place the Moone, which is of nature weake and moyst, changeable by encreases and wanes, and this they make to last but foure yeares.

The seven ages of mans life attributed to the seven Planets.

1.

The second from foure to fourteene, called childhood, over which they set *Mercury*, because hee of himselfe is indifferently good or bad, according to the good or bad Planets with whom he is joyned; so in this age a boy bewrayeth his inclination, and is so flexible, that according to his education and company he is mingled with, hee becommeth either good or bad, and that impression he then taketh, can hardly be rooted out of him.

2.

The third containeth the next eight yeares, and continueth to the twenty two; over which they place *Venus*, *Et primæ lanuginis ætas in Ve-*

3.

nerem est præceps; and it was called Youthead.

4. The fourth, called *Adolocencie*, lasteth twenty yeares, and continueth till the 42 yeare, and is governed by *Sol*, the Sunne, which Astrologians call the spring, the light, the eye of the world, and King over the other Planets: In this age man attaineth to his full strength and vigour, becommeth hardy, judicious, understanding, &c.

5. The fifth lasteth from 42 to 56, and is called manhood or virile age, ruled by *Mars*, a bad star, dangerous, fierce, and hot; for in that men begin to wax angry, impatient, and avaricious, but more temperate in their dyet, and more constant in their actions.

6. The sixth taketh up 12 yeares, so lasts to 78, and is called old age, governed by *Iupiter*, a noble Planet, making men religious, just, chaste, temperate, and pious: In this age men abandon paines and travell, and practise devotion and good workes.

7. The last is from 78 to 98, which yeares few come to, and is called decrepit old age, ruled by *Saturne*, the highest and most maligne Planet, cold, dry, and mellancholick; cumbersome, insupportable, weake, and growing againe childe-like.

SECT. 7.

The opinions of some Fathers of the Church and some Philosophers concerning the number of Seven, what attributes they gave, with some of Hypocrates *observations thereon.*

BY Saint *Ambrose* in his 12. *chap. de Moha & Arca*; S. *Origen* in his 2 Homily on *Genesis*, and his third on *Exodus*; and *Eusebius de Præparatione Evangelica*; this number is sometime called a cleane number, a holy number, a virgin number, a mysticall, a number of perfection, with many the like Epithets attributed unto it both by Civill and Ecclesiasticall Writers; yet *Chrysostome* in his 24 Homily on *Genesis*, speaking of the number of Beasts that entered the Arke, inveyeth against, and taxeth all observers of numbers: *Hypocrates* in his worke *de partu Septimestri*, enlarging himselfe on the properties of this number, saith, that the life of man consisteth of septinaries; that in seven dayes a childe hath all his compleate members; and that if any man abstaine totally from meate and drinke seven dayes, hee cannot live; that a childe borne the seventh moneth may live, but not one borne the eight; because (saith hee) that then *Saturne*, by course over-ruleth the birth; that in seven yeare children have all their teeth; that the Guts of man are seven times his length; that the celestiall bodies

of

of thē Moone, and of the eight and ninth Orbe doe move by *Septinaries*; the Moone maketh her course in foure seven dayes; the eight Spheare finisheth its revolution in seven thousand yeares; the ninth, in seven times seven thousand, which make out forty nine thousand, and many the like.

SECT. 8.

Of the seven Wonders of the world.

Seven Wonders,

THere have beene seven wonders famed through the world, so called, either for the vastnesse of the fabrick, or curiosity of workmanship: 1. The Pyramides of *Egypt*. 2. The Towre of *Pharos*, built by *Ptolemy* King of *Egypt*. 3. The Walls of *Babylon*, built by *Semiramis*. 4. The Temple of *Diana* in *Ephesus*, which was beautified with 127 Pillars of *Parian* Marble. 5. The Tombe or Sepulchre of *Mausolus* King of *Caria*, built by his Q. *Artemesia*. 6. The *Colossus* at *Rhodes*, the Image of a huge Gyant cast in Brasse, which be-stridde the River which runneth to *Rhodes*, under which a ship might passe: By some the Pallace of *Cyrus* which was reported to bee cimmented with gold, obtained the seventh place, though some, as *Martiall* in his first Epigram, preferreth *Vespasians* Amphitheater at *Rome* before it, or any of the former: but the matter is not worthy a controversie. So I leave them and proceede.

SECT. 9.

SECT. 9.

A continuation of observations on the number of seven, taken out of holy Scripture.

THe *Israelites* compassed the Walls of *Ierico* seven times; and at the seventh blast of the Rammes hornes, which they carried about them, they fell downe to the ground, and the Walls were throwne downe.

The greater part of ancient Sacrifices were by sevens, as seven Rammes, seven Bullocks, &c.

Sybilla enjoyned *Æneas* to sacrifice in sevens,

Nunc grege de intacto septem mactare juvencos
Prestiterit, totidem lectas de more bidentes.

The principall Feasts and Solemnities of Gods people continued seven dayes.

Seven dayes the people eate unleavened bread at the Passeover.

God had seven thousand reserved unto himselfe, which bowed not their knee to *Baal*.

Iob had seven Sonnes; and *Zachary* maketh mention of seven eyes, wherwith God seeth all things.

The Prophet *Elisha* commanded *Naaman* the Leper to wash himselfe seven times in the River of *Iordane*.

The number of Beasts which entered the Arke of *Noah* were seven: The Arke rested on the

Mountainē of *Ararat* on the seventh moneth: and in the 19. of *Proverbs*, Wisedome hath built her house on seven Pillars; the seven Candlesticks, the seven Churches of *Asia*; the Booke closed with seven seales; the seven Angels, with their seven Trumpets; the seven viols of Gods wrath; the seven degrees of the Temple; seven loaves served the whole Companie which were with our Lord: *Pharaoh* dreamed of seven fat, and seven leane kine: and God in the 26 of *Leviticus*, threatneth a sevenfold curse to bee multiplied on all that thinke the evils that befall them to come by chance; all which with many more mentioned in Scripture, cannot be without their owne mysteries; No marvell then that *Pythagoras* and others have reputed this number a religious one; since Scriptures are full of occurrences of this number; and the world consisteth of the harmony of seven Vnities, Naturall, Conjugall, Regular, Personall, Essentiall, Ecclesiasticall, and Politicall.

SECT. 10.

Of the seven great Potentates of the world; of critticall dayes, and climatterick yeares, with other observations.

IN the Heavens are seven Planets, and in the Earth seven great and powerfull Potentates doe rule: The

The great *Cham* of *Tartary*; the Emperour of *China*, by them called the second Sonne of God; the Sophy of *Persia*; the great *Turke*; the Emperour of *Germany*; *Prester Iohn*; the powerfull Monarch of *Æthiopia*; and the Emperour of *Russia*.

The seventh and forteenth day in all diseases are accounted most dangerous, and are called Criticall.

Macrobius, *Aulus Gellius* and others observe, that every seventh yeare in the life of man there followeth some alteration either in estate, voyce, colour, hayre, complexion, or conditions: And *Seneca*, *Septimus quisq; annus ætati notam imprimit*, wherefore the 7. 14. 21. 28. 35. 42. 49. 56. and 63. the great Climactericke yeare are counted dangerous for all. *Firmian* adviseth all to take great heede to themselves in these yeares: *Octavianus Cæsar* having passed this date, writ to his Nephew *Caius*, to congratulate with him, that he had yet seven yeares more to live.

There are seven Liberall Sciences, Grammar, Dialect, Rhetorick, Musick, Arithmetick, Geometrie, and Astronomie:

Gram. loquitur, Dia. vera docet, Rhet. verba colorat,
Mus. canit, Ar. numerat, Geo. ponderat, As. colit astra.

Seven *Roman* Kings, *Romulus*, *Numa Pompilius*, *Tullus Hostilius*, *Ancus Martius*, *Tarquinius Priscus*, *Servius Tullius*, *Tarquinius Superbus*.

Rome was built upon seven Hills; *Palatinus*, *Capitolinus*, *Quiritalis*, *Celius*, *Escalinus*, *Aventinus*, and *Viminalis*.

There were seven wise men of *Greece*; *Solon*, *Thales*, *Chilo*, *Pittacus*, *Cleobulus*, *Bias*, and *Periander*.

There were seven kinde of Crownes amongst the *Romans*.

1 The Triumphall, first made of Lawrell, & there after of Gold, given to their Emperours by the Senate, in honour of their Triumphs.

2 Obsidionall, given by Souldiers to their Emperours, for delivering them from a Siege; and it was made of grasse, gathered from about the trenches of that Siege.

3 The Civicall Crowne, which was bestowed on any Souldier that had releeved a captived Citizen.

4 A Murall Crownē, which was given to any man that first entered a Towne, or had scaled the Walls of it.

5 Castrensis, a Crown, given to the first enterer into the Enemies Campe or Trenches.

6 The Navall Crowne, bestowed on him that first had boorded an Enemies Vessell.

7 Was called *Ovalis*, or a Crowne of rejoycing, made of Myrtle, which was put on the heads of their Emperours, *in ovatione* (as they said) or in signe of rejoycing at his admittance to that dignity.

SECT.

SECT. 11.

Of the Worlds Continuance and Ending.

THat ſubtle and excellent Philoſopher *Leo Hebreus*, expatiating in the meditation of this Number of ſeven, admiring and ſpeaking of the worlds reſt, ſaith; That after ſix thouſand yeares are expired, in the ſeventh thouſand this elementary world ſhall reſt, which God thereafter will renew ſeven times; betwixt every ſeven thouſand giving one thouſand yeares reſt; after all which, ſaith hee, this elementary world, the Earth and all beneath the Moone, the Celeſtiall world alſo ſhall take an end: which *Proclus* alſo the Academick ſecondeth, when hee ſaith, that the life of this world is ſeptenary, its parts, proportion, and circles are ſeptenary; and with them many other Philoſophers have dived too deepe into theſe myſteries; yet I cannot paſſe by *Charon*, who in his Hiſtory bringeth in *Elias* the *Iew* (not the *Thesbite*) affirming, that the world ſhall laſt but ſix thouſand yeares: *viz.* two thouſand before the Flood; 2000 from it to the comming of the *Meſsias*; and from that two thouſand more to the Conſummation of all things; which in all amounteth to 6000. Wherto S. *Auguſtine* in his firſt Booke on *Geneſis*, *ad Manichæos*, ſome way enclineth; yet *Heſychius*

ingēniously confesseth his ignorance of it, since neither to the Sonne of man (as he was man) nor to the Angels that knowledge was revealed: *Origen* adheareth to *Leo Hebræus* opinion of 7000. yeares continuance in his Homily, *Quòd Mundus cum tempore cæperit*, in this third Booke περὶ ἀρχῶν; and goeth further, saying, that after this world is ended, another shall begin; and that before this world, there was another which hee would strive to approve with Authorities out of holy Scripture, which doeth savour a little too much of presumption; for in all the Scripture there is no expresse mention to bee found either of the one or other: But wee are commanded, not to pry too farre in these and the like mysteries which concerne not our salvation, and which God hath kept onely to himselfe.

Mitte arcana Dei, cælumque inquirere quid sit:

Yet indeede this Father in his Homily *de fine vel consummatione*, ingeniously confesseth, that he only handled those matters by way of reasoning, than any wayes to conclude an infallibility of them; for in the end he acknowledgeth, that hee wrote them in great feare and suspensive trembling.

OF PRODIGIES AND MIRACLES:

Which are true, which false.

SECT. 1.

The definition of Miracles, with their distinction: In what time they were requisite, in what not, &c.

SAint *Augustine*, that famous and reverend Father of the Church in his 6. Booke *de utilitate credendi ad Honoratium*, defineth Miracles, to bee things beyond the expectation and power of the beholder: Whereof there are two kindes, True and False.

Two kindes of Miracles.

The

False Miracles which.

The false are such Miracles as are not in effect the thing they seeme to be; or if they be, they are not of any power that excelleth nature, but meerely of and by the power of nature, though obscured and hid; which the bad spirits as well as the good can performe.

True Miracles.

True Miracles are done by the power of God, beyond all faculty of created nature, partly to draw the beholder to a due and true admiration of him in them, and partly to confirme their faith: such as these were; the bringing back of the shadow ten Degrees in the Diall of *Ahaz*, for *Ezechias*: A Virgin to conceive with childe, and yet remaine a Virgin: To draw water out of a hard Rock: To make the Sea to part in twaine; the Sunne to stand still; to turne water into wine; to cause Manna fall from heaven, and many of the like kinde comprehended in holy Scripture, which indeede were miraculous things of themselves, if we consider the nature of their doing; where, on the other side, false Miracles may, in a manner, be thought miraculous, but not so much for the nature of their doing, as for the manner how they are done; *Neque enim* (saith one) *constant miracula magnitudine operum*; so these Miracles are not so much to be measured by the greatnesse of the worke, as by the way of doing of them: and such as these bad spirits cannot bring to passe, because how wonderfull soever their miracles appeare to be, yet they doe no wayes exceede the reach of Nature: *Ita ut mirabilia quanquam sint, non proinde sint, & Miracula.*

Difference betwixt true and false Miracles.

Neither

Neither is it to be denied, but that God serveth himselfe with, and permitteth the false Miracle-workers, intending thereby rather to trie the faiths of the beholders of them, than any way to allow or confirme their doings, as *Deut. cap.* 13. *vers.* 3. may be seene.

Why God permitteth false miracles.

Now, where it is said before, that true Miracles are for the confirming, as false ones are for trying of our faiths; this must be understood to be, when the workers of them doe teach withall so sound doctrine, that his Miracles may bee judged by it, not it by them. Hereby I intend not to enforce a necessity of miracles perpetually for confirming our faith; for though, during the Churches infancie, they served some way towards the establishing and confirming of the weake and wavering faiths of the hearers; yet now they are not so requisite, seeing the Law, Prophets, Evangelists, and Apostles workes and writing are so universally preached unto all.

When miracles were most necessary.

SECT. 2.

Of Prodigies, and in what veneration they were amongst the ancient Romans.

BEing loath to trouble the Reader with the tedious definitions of Prodigies, nor with the severall and many opinions of Writers con-

cerning them I will relate onely ſome ſtoryes of them, and of the times wherein ſome of them happened; of all which, as the moſt part of the *Roman* Writers make mention, ſo particularly *Sabellicus* in his Rhapſoeticall hiſtory of the world; and that from the 11. or 12. Booke of his 4. *Æneid*, unto the end of his Worke.

During the firſt *Punick* Warre, (which was the firſt betwixt the *Carthaginians* and *Romans*) under the Conſulſhip of *Appius Claudius*, and *Marcus Fulvius Flaccus*, which was the foure hundreth and ninety yeare after the building of *Rome*; the *Roman* Hiſtories were then both more frequent, and did ſavour more of truth and poſſibility than their former: Wherefore to begin with that time, I obſerve, that there never happened any remarkeable Prodigie, either in the Ayre, Water, or Earth, after which there were not presently Expiations, Luſtrations, Prayers or offerings made unto their Gods, to whoſe Temples and Altars people of every ſex, age, and condition did flock and runne, to pacifie and appeaſe their incenſed wrath; which may ſerve to condemne the neglect and contempt that is in Chriſtians of the like Prodigies, and teach us (as theſe Heathen did when they chanced) to repaire to our true God, and implore for mercy, and forbearance of wrath at his hands.

The piety of the ancient *Romans* after any remakeble Prodigies.

Chriſtians blamed.

To begin then (as I ſaid,) with Prodigies obſervēd in the time of the firſt *Punick* or *Carthaginian* Warre; of thoſe many admirable ones recorded by *Sabellicus*, I finde this moſt worthy of relation:

In the *Picenean* Territory, *Cneius Domitianus*, and *Lucius Annius* being Consuls, a River was observed for the space of a whole morning, to runne red blood, no accident that might cause it being perceived by any; for which, and some others the like, the *Romans* intituled their *Novendialia sacra*, or expiations for nine dayes; and *Livius* likewise in the time of *Tullus Hostilius* their third King, relateth, that the like propitiatory Sacrifices were ordained for the like causes.

A River ran blood.

The institution of the *Novendialia sacra*.

In *Hetruria* also, (which is now the *Florentines* bounds) the heavens were perceived to burne.

The heavens burned.

In the Citie of *Ariminii*, three Moones at once were one night seene by the Inhabitants; all which Prodigies appeared about the end of the foresaid first *Punick* Warres.

Three Moones.

Shortly after, about the beginning of the second warre, after *Hanno* was overcome by *Scipio*, a Childe of a moneth old was heard to crie in the Streete *Triumphi, Triumphi*.

A childe of a moneth old spake.

In the fields of *Amitermin* neere *Rome*, ships were discerned in the skie, and men in long white garments were perceived to march towards one another, but never to meete.

Men seene in the skie.

In the *Picen* Territory it rained stones; and the Sunne and Moone were seene to joust (as it were) at one another; and in the day time two Moones appeared in the heavens. At *Phalascis* the heavens seemed to bee rent asunder: And at *Capua*, the Moone seemed to burne; and, as envolved in a showre of rainē, to tend towards the Earth; *Civi-*

Two moones at once.

tas ob hæc prodigia (saith *Sabellicus*) *lustrata est, lectisternium & supplicatio indicta, aliaque aliis diis placamina decreta.*

SECT. 3.

A continuation of Prodigies, which happened in the time of the second Punick *Warre; with many others that were seene under the times of severall Consuls of* Rome.

A greene Palme tree tooke fire of it selfe.

IN the first yeare of this second *Carthaginian* Warre, under the Consulship of *Fabius Maximus*, & *Marcus Claudius Marcellus*, a green Palme tree in *Naples* tooke fire, and burn'd away to ashes.

Rivers runne blood.

An Oxe spake.

At *Mantua*, a litle Rivulet or stripe of water which ranne into the River *Mincio*, was turned into blood: And at *Rome* it rained blood. An Oxe was heard there to speake these words, *Cave tibi Roma.*

It rained stones.

Afterward in the Consulship of *Quintus Fabius*, sonne to *Fabius Maximus*, and *Titus Sempronius Gracchus*, the similitude or likenesse of great, long, and tale ships appeared to bee upon the River of *Taracina* in *Spaine*: At *Amiternum* in *Italie*, a litle Brooke ranne blood for severall dayes: In *Albano monte* in *Rome*, it rained stones. The Sunne at divers times was seene of a bloody colour: Many Temples and holy houses in *Rome* were beaten downe with

with Thunderbolts from heaven: ſome of the Citie Enſignes or field Colours were obſerved to ſweate blood; two Sunnes appeared in the Heavens; at one time it rained milke, at another ſtones.

Enſignes ſweat blood.

During the Conſulſhip of *Cornelius Cethegus*, and *Sempronius*, at what time the *Africane* Warres were appointed to *Scipio*, two Sunnes at one time were ſeene in the Heavens: and the night (which is by nature darke) appeared extraordinary light: A Comet in forme like a burning torch was diſcerned to reach from the Eaſt to the Weſt; and it rained ſtones after that notable overthrow given to *Hanniball* by *Scipio*, (which was the laſt to *Hanniball*) and at the time when the Conſull *T. Claudius* was appointed to prepare for *Africk*, to appeaſe ſome mutinies that had riſen there; upon his ſetting out to that voyage, the Orbe and face of the Sunne was viſibly diſcerned to be leſſe than uſuall: Moreover in the *Veliternean* fields, the Earth rent aſunder in ſo huge and frightfull gappes, that trees and whole houſes were ſwallowed up in it; after which there followed ſhowres of ſtones.

Two Sunnes.

The Earth rend aſunder.

In the Conſulſhip of *Cn. Belius*, and *L. Æmilius Paulus*, it rained blood for two whole dayes together: And the Statue of *Iuno* in the Temple of *Concord* at *Rome* was perceived to ſhedde teares.

A Statue wept.

SECT. 4.

Of Prodigies that happened during the civill warres betwixt Marius *and* Sylla; *of some in* Iulius Cæsars *time; as, at his passing the River of* Rubicone, *the* Pharsalian *warres and at his death, &c.*

The Capitoll destroyed by fire from heaven.

AT the beginning of the Civill warres betwixt *Marius* and *Sylla*, a Mule, by nature barren, did foale: The Capitoll tooke fire; and which was lamentable, it being a worke of foure hundreth yeares standing, & famous through all the world, was destroyed; the whole Citie was so shaken with Earth-quakes, that the face of it was wonderfully defaced: and a woman conceived and was delivered of a Serpent.

Images in Temples sweat blood.

When *Iulius Cæsar* had crosse'd the River of *Rubicon*, contrary to the decree of the Senate, the heavens, as foreseeing what imminent danger was to ensue thereupon, rained blood. The Statues and Images of their Gods in the Temples did sweat great droppes of blood; and many faire buildings in the Citie were beaten downe with fire and thunder from heaven.

On the same day that the *Pharsalian* battell was strooke, the Statue of *Victoria*, which stood in the Temple of *Minerva* at *Enlide*, was seene to turne its face towards the Temple doore, whereas before

it

it beheld the Altar. At *Antioch* in *Syria*, ſuch great noyſe and clamours were heard twice a day about the Walls of the Towne; that the people, afrighted with a ſuppoſed approach of the Enemy, ranne out of the Citie in their Armes. In the Temples of *Ptolemais*, Organs and other Inſtruments were heard to play before *Cæſars* death: And thoſe horſes, which at the paſſage of *Rubicon* he had conſecrated to *Mars* the day before his maſſacre, were obſerved and ſeene to weepe and to forſake their foode, and ſtray about. Shortly after his death too, about the proſcription of *Lepidus* and *Antonius*, an Oxe being led out to plough, uttered theſe words to his Maſter; *Why urge you mee to worke, wee ſhall lacke no corne, but men:* and a new borne childe did ſpeake.

Inſtruments heard to play where none were.

An Oxe ſpake.

SECT. 5.

Of Prodigies before the death of Galba; *before the deſtruction of* Ieruſalem, *and at the end of the* Valerian *perſecution.*

THere were ſuch fearefull Earth-quakes before the death of the Emperour *Galba*, that at the renting aſunder of the Earth, moſt hideous noyſes were heard, not unlike to the lowing of Oxen: But of all the Prodigies and Miracles that I read of, thoſe which went before the deſtruction of

of *Ieruſalem*, were the moſt terrible, whereof *Ioſephus* maketh mention at length, yet my Author recounteth others no leſſe memorable, which were theſe: The Comet in the ſhape of a Sword that appeared and (as it were) did hang directly over the Citie, before the deſtruction. An Oxe leading to the Altar to be there ſacrificed, in the middle of the Temple, did bring forth a calfe, to the amazement and aſtoniſhment of all beholders of it: One night, about midnight it grew as light within the Temple, as at noone-day. Hoaſts of armed men, and Chariots appeared in the ayre; and the Prieſts heard a voyce within the Sanctuary expreſſe theſe words; *Let us remove from hence.* About the end of the *Valerian* perſecution, before the death of *Galenus* the Emperour, (in whoſe dayes the Empire began mightily to decline) there was darkeneſſe for ſome dayes over all that tract of Earth, in and about *Rome*; There were moſt dreadfull thunders heard, with moſt frightfull noyſes, as roaring and fearefull lowings in the ayre, and bowels of the Earth; whereupon followed ſo terrible Earthquakes, and openings of the Earth, that whole Villages and Townes were thereby deſtroyed: Laſtly, through the dread and terrour of theſe frightfull noyſes, and by the ſight of theſe Prodigies and portentuous wonders, many both men and beaſts were ſtrucken dead.

A Comet like a ſword hang over *Ieruſalem*.

An Oxe calved.

Formidable Thunders & Earth-quakes

SECT. 6.

SECT. 6.

A continuation of other Prodigies; with a conclution of this Treatise.

ABout the end of the *Goths* and *Vandals* wars against the *Romanes*, there were seene in the ayre, Armies flaming as all on fire; from which there rained drops of blood: and thereafter followed extraordinary overflowing and deboarding of Rivers, but chiefly of *Tyber*; which of all other Rivers is observed to deboard both most excessively and most often; and these ever goe before some evill to happen to the City: But of all her deluges, none more memorable than that which happened under the Pontificy of *Pelagius*, which overswelled the walles of the City, destroyed all the Corne in the lower Countries, and procured such a famine and Pestilence, that thereby many thousands perished, amongst whom the Pope himselfe, after whom *Gregory*, the most worthy Pope of that name succeeded.

The deboarding of *Tyber* ominous to *Rome*.

In the time of *Sabianus* successor to him, a terrible and Portentuous blazing starre was seene; and the sea cast up many Monsters with visages like men.

A blazing starre.

The sea cast out monsters.

These, and many the like were seene before the dayes of *Bonifacius* the third, in whose time the *Romane* Church obtained of *Phocas* then Emperour, the title of Mother and supreame Church;

for till then the Greeke Church claimed the superiority.

It rained blood three dayes.

In the dayes of *Adrian* the second Pope of that name, it rained blood three dayes. A little before the death of *Sergius* (the first Pope that began to change his Proper-name) terrible fiery torches and fleakes were seene in the ayre, with great noyse and thundring.

In the Pontificy of *Iohn* the eleaventh, sonne to *Sergius*, a fountaine in *Genoa* ranne blood in great aboundance.

A huge stone fell from heaven.

About the time that *Iohn* the twelfth was for his flagitiousnesse and abomination deposed by the Emperour *Otho*, a great stone fell from heaven: In *Naples* likewise within this hundreth yeares there fell a browniſh coloured one of an extraordinary bignesse. In *France* likewise upon a S^t. *Iohns* day there fell a great peece of Ice, in a showre of raine, many feete long.

A great piece of Ice fell in *Rome*.

In the yeare of our Lord 1012. when *Ierusalem* was taken by *Anmrath* the great Turke, there were terrible earthquakes, and fiery impressions seene over all the firmament, and the Moone appeared bloody.

Conclusion.

But to recount all Prodigies and Miracles which in latter ages have appeared in severall Countries; and to set downe the severall Reasons that are given for them, with the events observed to ensue after every of them, would take up a greater Volume than I intend this whole booke to be; therefore I will here put an end to this discourse.

SALA-

SALAMANDRA.

OR

A short Treatise of the PHILOSOPHERS STONE

SECT. I.

The Historie of the life and death of Antonio Bragadino.

THe Historie of one *Antonio Bragadino* a *Cyprian* Gentleman, which in my time I did reade in *Villamont* a *French* Barones travels and voyages, hath occasioned mee to undertake this taske. This man, saith he, for the good services done to the *Venetians* in the time of their Warres upon that Isle, being retired to *Venice*, and there become their stipendiarie, (or rather pensioner) having fallen at variance with some clarissimo

Bragadmos flight from *Venice.*

whereupon ensued blood; not being able to keepe their citie any longer for feare of his life, withdrew himselfe to the countrey; where being in necessity (through reason of his pension which he wanted) bethinking himselfe how he might live by his wits; in the end, retiring to a desert, he rancountred with an Hermite, who tooke, him to his cell; and having imparted to him his distresse, got this comfortable answer back againe; that if hee would be partner with him of the taske which sundry yearēs agone he had undertaken, that he would not onely releeve him of his present necessity, but likewise (if the event deluded not his intention) would make him one of the richest and wealthiest men in the world: To which discourse having listned, and perceiving it was nothing but the blowing of the coale hee meaned, being allured thereto by his present want, the hope and expectation of future gaine, the venerablenesse and gravity of the person, the religious silence of so solitary a place, he embraced the offer, and in the end became so expert in the calling, that by his white powders, (for as yet hee had not comē to that perfection to make red) he redeemed himselfe from his exile, by presenting the Senate of the Citie with Ingots, to the value of fiftie thousand Crownes, with certificate, if that it should please them to restore him to his wonted liberty (for thither was his affection carried beyond all thē parts of the world, in regard his Mistresse was there) hee should enrich their Treasure for ever. Wherewith the Senate being much pleased, received him to their

His meeting with an Hermite.

His proficiencie in the Art of Chimestrie.

His Present to the Senate.

Restored to favour.

their favour againe, where he was entertained like a Prince, attended with a Guard not so much for honour of his person, as for feare he should have left them, and gone otherwhere; while in the end his *Ingots* being suspected and called in question for the validity of them, his Guard beginning to vilifie him, and to neglect their wonted strict attendance, hee under cloud and silence of night, with his Mistresse, and a black dogge which still followed him, fled their Citie and Territory; and in the end having come to the Duke of *Baviers'* bounds to *Germany*, was there apprehended and hanged upon a gilded Gybbet, as one who had deluded the world by his sophisticate monies.

He is suspected of Treachery.

Hee flyes to *Bavaria*.

He is hanged on a gilded Gybbet.

SECT. 2.

The reason that moved the Author to handle this matter: The different blessings betwixt the Indians *and* Christians: *the definition of the Philosophicall Stone; the generall way and matter whereof it is made.*

THe Historie, I say, of this unfortunate man, and rich couzener, made me the more curious and desirous to know the nature of so rare a thing as that which they call the Philosophicall Stone, which if men might attaine to, the West *Indes* should not bee so much frequented as

they are; but O how great is the wisedome and power of the Creator of all, who reserveth the perfect knowledge of so high a secret to himselfe, and imparteth it but to very few, knowing the insatiablenesse of the heart of man; and to these who know not the worth of gold, hee doth bestow it in such plenty, that their ordinary houshold-stuffe, as Tongs, Chuffles, Pots, Tables, and Cupbords, &c. are made of it whereas they starve in a manner for that whereof we have such store; and which they esteeme asmuch above their gold as we prize their gold above our other necessaries.

The plenty of gold which the West Indians have.

So far as I can learn, I find that the Philosophicall stone (by the *Arabes* called *Elixir*) is the very true and just seed that engendereth and begetteth gold: For gold is not procreated (as I may say) either of Brimstone, nor of Mercurie, nor of any such thing as fraudulently some suppose and give forth; but it is to be search't and found out of gold it selfe, and that most purified: for there is nothing in Nature which hath not of it, or rather in it the seede of its owne kinde, whereby it may be multiplied; but yet hardly by Art may it be drawne out, by reason that the greatest and most vigorous strength of that seede consisteth in a certaine oylie substance, or rather adhereth to it; which, whensoever by fire wee goe about to draw out, or segregate from the substance it selfe, it consumeth away; which not being so in gold, because by the violence of no fire it can be so burnt away, but that it may abide the whole strength and force of Art; therefore out of

The true matter of gold.

it

it onely that seede or *Elixir* may bee extracted, whereto it seemeth the Poet alludeth, when hee saith, —— *Vni quoniam nil deperit auro*
Igne, velut solum consumit nulla vetustas,
Ac neque rubigo, aut ærugo conficit ulla
Cuncta adeò firmis illic compagibus hærent.

SECT. 3.

The Authors proposition: the reasons of its denomination; opinions of most approved Authors touching it; and of the Possibility and factibility of it.

I Passe by the methode and order of *Fernelius* in his last chapter *de abditis rerum causis*, as being too speculative; for I will here set downe a more full and ample description of it, and such as hath beene imparted by the most accurate wits that this age affordeth, after I have a litle spoken of the names both of it, and of the Authors who treat of it; and have resolved some scrupulous difficulties; yet my intention herein is rather to let the Readers know the most approved opinions of the most learned Writers on this subject, then definitively to set downe mine owne.

It is called a Stone, because the things whereof it is composed are consolidated and coagulated in a hard and heavy (yet friable) masse, and thereafter

ter reduced to a most subtle powder.

It is called the Philosophers Stone, because Philosophers were the first Inventers of it, and they best know the making and use of it.

Ripleus c. 3. p. 74.

They give it an infinite (almost) number of names partly to set out the matter, nature, and properties of it, and partly to obscure and hide it from the ignorant and impostors; for the which cause they gave it many figurative names, styling it by some part of the matter whereof it is made, and by similitudes, as they call it *Salamandra, quæ igne concipitur, igne nutritur, igne quoque perficitur*: It is conceived, nourished, and perfected by the fire and in the fire: *Philosophi celare volentes veritatem quasi omnia figurativè loquuti sunt.*

Iodoc. Grenerus p. 36. Flos Flor. p. 35. 37.

Many thinke the Philosophers Stone a thing impossible to be got, but a multitude of most ancient and modern Philosophers have thought otherwise, who knew both the theorie and practick of it: And of the transmutation of mettals, *Libavius* bringeth in a great number of them that testifie the same, in his Appendix *de natura metallorum*, amongst whom hee produceth *Geberus Hermes*, *Arnoldus*, *Thomas de Aquino*, *Bernardus comes*; *Ioannes Rungius*, *Baptista Porta*, *Rubeus*, *Dornesius Vogelius*, *Penotus*, *Quercetanus*, & *Franciscus Picus*, who in his 3. Booke c. 2. *de auro*, declareth eighteene particular instances, whereby he affirmeth plainely, that so many times hee did see the transmutation into silver and gold, so that the possibility and factibility of the Philosophers Stone and transmutation is evident.

Thom. Aquin. ad fratrem, c. 1.

If

If any would alleadge difficulty, it is true any thing is difficult, and even the most facile thing is such to them that are ignorant, but to those that know it in speculation and operation, it is most easie, even as *ludus puerorum*, and *opus mulierum*.

SECT. 4.

That the making of the Philosophers Stone is lesse expensive and laborious than many things wee both use and weare; why the makers of it enrich not themselves and others.

THe true making of that Stone is neither expensive, nor long, nor weariſome to those that have the dexterity of it.

Betwixt the Barley graine that must be sowne, and the *aqua vitæ* that is made of it, there is both a longer time, and many more points of labour: And betwixt the linnesſed, and the linnen cloath wee were, there is a longer time, and much more labour than in the framing of Philosophers Stone, as these blowers would have the world beleeve.

It is true, many chymicall Philosophers so soone as they attained this precious Stone, the very knowledge of it delighted them more than worldly gaine; and they made more use of it in Physick than in projection. And if any would aske; what was the cause they made not themselves and all

their friends most excellently rich. It may be well answered, they lacked not, they had contentment, they delighted more in theory than practick: they *disdained* to bee gold-makers to those that were greedy, or to those that were through idlenesse needy, and were *afraid* to be made a prey and captivate slaves to avaricious and cruell tyrants: these things and such like made them obscure and hide from the world what they knew or could doe, intending rather to have by the Philosophers Stone a balsamick universall medecine than the seminary of gold.

Many have written divers treatises of this subject some one way some another way, some more mystically some more plainely; and what is darke in one, is found againe more cleare in another, specially to such as are diligent Readers of the *Hermeticall* Philosophy, I will therefore set downe here what by most approved consent of all, is the most easie and compendious way to perfite the Philosophers Stone, without prejudice to others, that thinke they knew a better way. In this my discourse there shall be nothing obscure, but that which a *filius artis* may easily understand.

SECT.

SECT. 5.

A generall relation of the matters and materials requisite to this worke; and in what time it may bee perfected.

AND first, these principles and grounds for this worke are to bee understood, to wit, 1. Every mettall consists of Mercury as a common versatill and flexible matter of the which all mettalls are, and unto the which all may bee by Art reduced. 2. The *species* of mettals, and their specifick and essentiall formes are not subject to transmutations, but onely the *individuals of the species*. 3. All mettals differ not in their common nature and matter, but in their degree of perfection and purity. 4. Art surmounteth and over-reacheth Nature, for Art assisted by Nature in a short space may perfect that which Nature otherwise by it selfe was a thousand yeares in perfiting and accomplishing. 5. God hath created every mettall in its owne kinde, and hath implanted in them (specially in the perfect mettall) a seed whereby they may be by Art multiplied.

The chiefe matter of this Worke is most purified gold, and silver joyned together in the progresse of the Worke; and (as some hold) Gold alone in operation *ad rubeam tincturam*, and silver alone *ad albam*;

Tauladan. p. 28.
Rosarum, p. 18.
Libanius
Mullerus.

Aquinas c. 3.

albam; and Mercury according to Art well prepared, is the principall perfiter of the Worke.

Dauſtricus. p. 16. Monachus p. 16. Benedictus p. 56, 57, 58. &c.

The onely and chiefe key in this Worke, is that black brat that ariſeth and is emergent out of the ſolution of *Sol* and *Luna* with *Mercury*; called *Caput corvi, terra nigra, &c.*

Moriennes two principles Solut. & coagulat.

The chiefeſt workes are *Solutio* and *Coagulatio*; by ſolution *caput corvi* is obtained, as a ſeminary ariſing from the diſſolved *Sol, Luna*, and *Mercurius*, and muſt be chiefly regarded. By coagulation *caput corvi* is fixed and fitted for impregnation and fermentation. Solution whereby *caput corvi* is obtained, is more facile; but coagulation is more difficile.

Moriennes Theob. Arnaldus.

The time to finiſh the whole Worke is not yeares, but ſome moneths; the expenſe are not many, but tollerable, and the paines are eaſie, with ſome diligent attendance on the Worke: One Fornace Philoſophically made for diſtinction of the degrees of the fire will ſuffice: And one or two Glaſſes will be needfull; the Glaſſe muſt be a Viall in forme, and with a long ſmall cragge or neck, the body of it muſt be round, and ſo deviſed, that conſiſting of two parts, the inferior part may receive the ſuperiour part, that it may be cloſed skilfully, and opened againe at the Artificers pleaſure.

SECT. 7.

SECT. 6.

Of the 5 degrees whereby the Worke is perfectioned, and first how to bring it to Solution.

THe whole artifice in composing the Philosophers Stone consists in five distinct operations each following other in order, to wit, Solution, Coagulation, Fermentation, fixation, and Multiplication. Scotus, p. 61, 62.

Solution.

Take of Mercury (made menstruall by calcination, so subtily prepared by sublimation, that it may become sharpe and piercing) twelve ounces: of *Solis* the best sort refined by frequent fulmination, and drawne forth in most thinne plates or pieces, one ounce; upon the which in a Glasse powre some of the Mercury about the fourth or fifth part. Set the Glasse in a lukewarme heate in the first degree on ashes, and so stopped and closed, that nothing fall in nor out of it, when it is stirred and inclined; and let all stand for the space of 15, or 20 dayes, during the which time a part of the *Sol* will be dissolved into the Mercury, by reason of the internall fire and corroding acrimome thereof, powre off that menstruall and keepe it, and powre on another part of the same, doing as is said before; and let all stand eight or ten dayes, and so forth doe till

Exercet. 3. in tu bam. Arnald. in specie.

Scala Philosoph. p. 103; Mulletus de lap. philosoph

till the *Sol* be all dissolved into the mercuriall watter, which after the commixtion and resolution of *Sol* into it, Mercury which before was menstruall, now is of another temper, and is called *lac virgineum*, *aqua vitæ* wherein *Sol* is fully dissolved.

Put all this *lac virgineum* in the Glasse with the foresaid degree of heate every eight or ten dayes, then will appeare a black brat and *mater*, partly emerging and swimming above, and partly subsident which (the watter or *lac* being first powred off) must be collected so oft as it appeareth, and is to be kept for coagulation: It is called *caput corvi*, *sulphur auri crudum & nondum fixum.*

Rosarium p. 189: Libanius Arnaldus.

SECT. 7.

How from Solution to make Coagulation.

COagulation: put the sulphur *Solis* into the viol-glasse closse stopped, and set it in the foresaid first degree of heat for eight dayes, till it bee almost exsiccat with the humidity of *lac virginis* that was left inherent in it; and then open the glasse and poure thereon asmuch of the *lac* as is the weight of the *caput corvi*, and mixing it well, let it stand one or two dayes till they both be coagulat in one, and become almost dry; and so forth doe thus till all the *lac* bee drunke up, which will be about the space of 90. dayes more or lesse, according

Lullius, p. 116.

Arnaldus. Mullerus.

Miracula chymica.

Libanius.

ding as the matter is of quickneſſe and activity; and if this *lac* or *aqua vitæ* bee ſuſpected to have contracted any dulneſſe and ſuperfluous humidity while it was in the former worke of ſolution: in that caſe it is to bee prepared againe, quickned, ſharpned, and made fitter for this preſent worke of Coagulation.

Both theſe, to wit the *Lac virg.* and *Sol.* being Coagulat as is ſaid, the Coagulation muſt yet goe on, and with the ſecond degree of heat for the ſpace of a month, the matter Coagulat muſt ſtand in that heat, till there appeare *cauda pavonis*, that is, a variety and multitude of colours; and at length it will turne to a white colour, called *corpus album, ſulphur album, coagulatum album, terra philoſophorum, &c.*

SECT. 8.

How from Coagulation to produce Fermentation.

FErmentation: take as much of purified and laminated *Sol.* (as anſwereth to the third part of the foreſaid *coagulatum album*) and of menſtruall Mercury foure parts of the weight of *Sol.* Amalgamaz them and put them in the viol on a lukewarme heat for 15. dayes, till *Sol.* by the Mercury bee reduced into a ſubtile calx. Then amalgamaz in a marble morter all the foreſaid *coagulatum*

Iſaacus. Lullius. Calid. c. 6. Rolinus. p. 283. Daſtinus p. 30. Mullerus. Libanius.

tum album with the *Calx Solis* and menstruall Mercury, then put altogether in the viol, and set it for a month in a heat of the second degree: then set it in a heat of the third degree, and let it so continue a good space till it become an hard white heavy masse, and from thence to an yellow colour, and from this to an orenge colour, and thereafter incline to be redish coloured.

SECT. 9.

The way to bring the worke to Fixation.

Scotus p. 61. p. 01.

FIxation: for projection and transmutation, take the halfe of the said masse and bruise it, put it in a luted glasse, and set it on sand in a furnace, and increase the fire unto the fourth degree, that all may be made so fervent, that if a drop of water do fall on the sand it make an hissing, it must stand so, for 40. dayes, till the pulverished masse become a most subtile pouder.

And for projection of this pouder, one part of it upon a 100. parts of Mercury vulgar (but washed with vineger and salt) will make the whole, a perfect tincture, and as some hold; one part of this hundreth fold tincture projected on another hundreth parts of Mercury: in whole will make and afford 1000. parts of tincture for gold, whereof one part projected on 100. parts of warme Mercury, will presently transmute it into perfect *Sol.*

SECT.

SECT. 10.

From all the former, how to perfectionate Multiplication.

MVltiplication: is that wonderfull part of this artifice, whereby the stone being once made, needeth not to be made over againe; but may be multiplied to suffice continually, and it is thus done. Take the other halfe of the masse left in Fixation, or what quantity you please of it before Fixation, and put to it of *Lac virgineum* or *aqua vitæ* (prepared and provided for the purpose, and made after the manner aforesaid) a third part, and handle it after the same manner as is set downe in the worke of Fermentation, and it will become as fit both for Fixation to Projection, and Multiplication as before, and will ever be, so oft as it is reiterate.

SECT. 11.

A short recitall of some other wayes of perfecting it, used by some Filij artis, *and why it is called* Salamandra.

IF any please to make the Philosophers stone onely *ad album*, that is for transmutation of Mercury into *Luna*, he may observe this forefaid methode,

thode, which is onely *ad rubrum*, and so proceede in all things after that same manner, except onely two things. 1. for *Sol* take *Luna* fined and battered out in small and thinne plates. 2. when it commeth to the worke of Fermentation, give it onely a heat and fire in the third degree, so long till the Fermented masse become somewhat hard, and then proceede with it to Fixation and Multiplication as is said in the operation *ad rubrum*.

Some joyne together both *Sol* and *Luna* in the progresse of the worke till it come to Fermentation, and then to obtaine *tinctura alba* for transmutation into *Luna*, they put to *Luna* for the Ferment, and to obtaine *tinctura rubra* for transmutation into *Sol* they put to *Sol* for the Ferment, & so they proceed as is said.

There are diverse otherwayes in the making of the Philosophers stone, some more compendious, some of a longer processe, but this that is here set downe is the best.

The Philosophers stone is rightly called *Salamandra*, because its bred and nourished in the fire. It is a treasure both for turning other mettals into gold or silver, and for any universall medicine to cure and prevent almost all diseases. Which so admirably being once by art found out, doth shew its power and force; that with *Augurollus*,

Aguells. *Ipsius ut tenui projecta parte, per undas*
Aquoris: Argentum vivum tum si foret æquor
Omne vel immensum, Verti mare posset in aurum.

OF THE WORLD,

Its Beginning, Frame, and Ending; At leaſt the conjectu-rall Ending.

SECT. I.

Of the various diſtractions of Philoſophers in their opinions concerning their Gods; and upon how ill grounds they were ſetled.

IN peruſing the Monuments and Writings of the old Philoſophers, as I finde them abſtruſe and intricate in divers points of their profeſſions; ſo particularly I remarke their irreſolutions, and likewiſe the differences amongſt themſelves.

the people, much more of a wise man and a Philosopher; which moveth mee to thinke, that those were wisest amongst them, who medled least to speake of their Gods, and vexed not themselves with their enquiry; but with *Socrates*, esteemed the best judgement that they could make of their Gods, to be, to judge nothing at all of them.

The most diligent inquirers in the end discovered them to have beene but mortall men, who in their life-time had proved worthy either in Warre or peace, & were deified after their death: And accordingly *Augustus Cæsar* had more Temples and pompous solemnities instituted in his favour, than *Iupiter Olimpius* almost had.

So that to obscure the baseneſſe of their Gods, it would seeme, that they were moulded or painted of old with their fist closed upon their mouthes, or at least their fingers, as willing thereby living men, to speake either sparingly of their nature, or nothing at all.

Thus *Pythius Apollo* said well, and before him *Timæus* to his Disciple *Socrates*, speaking of the nature of the Gods;

Vt potero explicabo, non ut certa
& fixa sunt quæ dixero, sed ut homunciolus
probabilia conjectura adumbrans.

And in other places,

Sperantium sunt hæc non probantium.

But to enter here into the diversity of their opinions concerning the Deity the nature and descent of their Gods I am loath, lest wee should

imagine

imagine thoſe Philoſophers, in ſtead of wiſe men, as they were called, to have beene ſtarke madde: *Thales* eſteeming Gods to bee ſpirits, which had made all things of water, for he was the firſt that pried in the cabin of their ſecrets: *Anaximenes* on the contrary, willeth them to be of the ayre, becauſe they (as it) ſhould bee in continuall motion: Others of no little note, repute the Sunne and the Moone with the Starres to be Gods.

The Philoſophicall errour concerning the diſcent and progenie of their Gods.

Labentem cælo qui ducit is annum
Liber & alma Ceres *veſtro ſi numine, &c.*

Some againe made that Law imprinted in our hearts, by which we are inwardly (as it were) driven to doe good, and to abſtaine from evill: *Pythagoras* reputed God to be a certaine Spirit, ſpread and ſhed abroad on, or in the nature of all things; ſo that with him all were full of Gods: Others finally flatly deny that there was any at all, but that all things had beeing as they are, and ſhould continue in a perennell motion, viciſſitude, and change: But I ſhould weary you if I ſhould but relate every one of their ſeverall opinions.

SECT. 3.

SECT. 3.

Pythagoras *opinion concerning the transmigration of soules rejected; of the coupling of the soule and body together; with severall opinions of the ancient learned men concerning the substance of the soule.*

The errours touching the descent of their soules.

O What perplexity and doubts were the ancient Philosophers plunged in concerning the transmigration of their soules? their renowned *Pythagoras* avouched that strange opinion of *Metempsychosis*, of the change or transplacing of the soule of a dying man, to, and in the body of a new borne creature, whether beast or rationall body; and then that body dying againe, that selfe same soule to remove and regaine a new habitation, and so to continue from body to body. To which so fond an imagination, I thinke no old womans fable comparable.

And yet I excuse some way the irresolution of the Philosophers in this point, much more than in the mistaking of their Godhead; because I finde, that besides them, even the best Professors have doubtings in this point; that some of our Christian Fathers have beene touched with an admiration how the soule and body were coupled and yoaked together, whence one of the most famous is brought in, saying that *Modus*

Modus quo animæ adherent corporibus
omninò mirus est, nec comprehendi ab
homine potest; as before him *Plinius*,
Omnia abdita & in naturæ majestatis gremio recluſa;
So that with the Poet, no marvell though they ſhould ſay likewiſe,

Ignoratur enim quæ ſit natura animai
Nata eſt, an contra naſcentibus inſinuetur.
Et ſimul intereat nobiſcum morte perempta
An tenebras orci viſat, vaſtaſque lacunas,
An pecudes alias divinitus inſinuet ſe.

The alterations and diſputes concerning the ſubſtance of the ſoule are ſo many and different as is a wonder; ſome deny there is any ſoule in the body, but that our bodies move of themſelves, by the inſtinct and power of nature; Others againe confeſſe that there is a ſoule wherewith our bodies are vivified, ſay, it is a mixt thing compoſed of water and earth; others, of fire and earth: *Empedocles* wills it to be of and in the blood; thus *Eurialus* dying, was ſaid to render *ſanguineam animam*,
—— *Sanguineam vomit ille animam*: *Zeno* more judiciouſly in that kinde, eſteemeth it to bee the quinteſſence of the foure Elements: *Hypocrates*, a ſpirit diffuſed through the whole body and every part thereof, *Ita ut ſit tota in toto, & tota in qualibet parte*: It was a generall and received opinion, that in this world there was a generall Soule, *Anima mundi*, from which as all particular ones were extracted, ſo being ſeparated from their bodies, thither they returned againe, according to which

Divers opinions of the philoſophers concerning the ſubſtance of their ſoules.

Virgill saith, —— *Deum namque ire per omnes,*
Terrasque tractusque maris, &c.
And againe,
Scilicet hinc reddi deinde ac resoluta referri
Omnia, nec morti esse locum. ——

SECT. 4.

The former Heathnick opinions confuted by our Christian Beliefe; that they differed concerning the time of the soules continuance, and place of its abode: how they thought soules after the separation from the body to be rewarded for good or ill, &c.

THe last most plausible opinion, and which hath purchased to it selfe most Patrons, was, that the Father infused it into the Childe by generation; from which opinion few have swarved but Christians, who are taught to beleeve that the soule is given us from above.

The *Iewish* Church held (as wee) *Cælitus demissa*, and not *ex traduce*: Thus *Salomon*, *Eccles.* 12. *ver.* 7. The Philosophers generally held the contrary: the Poets (whom I account Rythmicall Philosophers, as Philosophers unversified Poets) are copious in this subject.

Fortes creantur fortibus, & bonis,
saith the *Lyrick*,
Nec imbelles ferocem,

progenerant

progenerant aquilam columbæ:
And againe another,
Dolus vulpibus, ac fuga cervis
A Patribus datur.

Now as they differed in opinion touching the ſubſtance and diſcent of their ſoules; ſo no leſſe varied they about the time how long, and the place where the ſoules ſhould continue after the diſſolution of their bodies.

The different opinions concerning the event of ſoules after their ſeparation from their bodies.

The *Stoicks* maintained, that the ſoule ſhall remaine a certaine ſpace after the diſſolution from the body, but not ever: *Pythagoras* and his Sect, of whom a little before, that the ſoules of the departed did remove from that body to another: of which ſort yet ſome were of opinion, that of theſe ſame ſoules ſome removed to heaven againe, and within a ſpace thereafter reddeſcended to the lower parts, which *Virgill* intimateth when hee ſaith,

O Pater! Anne aliquas ad cælum hinc ire putandum eſt
Sublimes animas, rurſumque ad tarda reverti
Corpora eſt?
And againe,
Læthos culices & longa oblivia potant.

Plato (and that he hath out of *Pindarus*) eſteemeth that as a man hath lived well or ill in this world, accordingly his ſoule ſhall bee requited hereafter; if well, that then it ſhall be rejoyned to the Starre to which it was firſt aſſigned; if ill, that then it ſhall be coupled to one of ſome malignant influence.

Finally, *Apuleius Madaurenſis* in his tractate of the Moone, bringeth in *Plutarch*, maintaining, that the ſoules of well doers here during their abode in bodies, to be converted into Demi-gods or Saints: On the contrary, the ill ones, or at the leaſt the worſt are turned into Demons: As for the abſolute eternity of them, they medled with that opinion rather more *Sperantium quàm probantium.*

By this preceding diſcourſe, wee may ſee how farre we are obliged to the infinite mercies of our great God, who as he hath revealed himſelfe truly unto us, at whom theſe ancient wiſe men but in a glimpſe obſcurely aymed; ſo hath hee ridde our mindes of that perplexity, wherein they were wrapt and infolded touching both the diſcent and event of our Soules.

SECT. 5.

Philoſophicall tenents of plurality of Words confuted; of Gods Creation of male and femall of all living Creatures.

BEcauſe the diſcourſe of the World, and the Philoſophers opinions touching the beginning, continuance, and ending of it, is the Theame which directly here I intend to handle; I haſte me to it.

That there were more worlds than one, *Demo-*

critus,

eritus, Epicurus, and others mantained as an undoubted verity, whence the Poet,

Terramque & Solem, Lunam, Mare, cætera quæ ſunt
Non eſſe unica, ſed numero magis innumerali.

Their reaſons why there were moe worlds than one.

The reaſon whereupon they grounded the probability of their opinion, was this, becauſe that in all the Vniverſe there was nothing created alone without a mate or fellow, as in all birds, fiſhes, beaſts; Yea in plants and hearbs, and in man their under Monarch may be ſeene, but as *Ariſtotle* himſelfe hath confounded that opinion of his, prior Philoſophers concerning their plurality of worlds, ſo naturall reaſon may leade us by the hand to its convincing; for, if there was another world, it behoveth to be as this is, ſpherite and round, becauſe that of all figures the orbicular is as moſt perfect, ſo moſt ſpacious; then if they were round, howbeit in their ſides they might touch and kiſſe one another, yet ſure betwixt the ſuperior convexes and lower concaves, there behoved to bee vacuities, which their owne Maximes admit not, for *Natura*, ſay they, *abhorret à vacuo.*

As for that conjugality (if abuſively I might ſay ſo) of all living Creatures in paires, it was ordained by the great maker for the propagation and multiplication of their kindes, which otherwiſe had decayed; for with *Apuleius*, *Cunctatim ſumus perpetui, ſigillatim mortales.*

SECT. 6.

Severall opinions of severall Phylosophers concerning the Worlds Eternitie; their naturall reasons for approving of it; and what the Egyptians *thought concerning the antiquitie of the World.*

Opinions concerning the Eternitie of the World.

THeir other opinion of the Eternitie of the World hath had more Patrons than this, and that so much the rather, because that seeing the Godhead, their supreame *Ens* was from all Eternitie, that therefore I say, hee could not then even from all beginning (if Eternitie could admit a beginning) be a Creator without a creature, for otherwise he should have nothing to do, as they say.

So that those of this opinion doe not infringe, that of the most famous in all the Greeke schooles, favoring the Eternitie of the World saying, that the World was a god created by a greater *One*; this World being a body composed of soule and bodie, which Soule had its seate and residence in the Center, from whence it diffused by musicall numbers, her force and power to the remotest extremities of the circumference, having within it, other lesser gods, as the Seas, Aire, Starres, which doe corresponde to other in a mutuall harmonie, in perpetuall agitation and motion. The Earth sen-

ding

ding up vapors to the Aire, the Aire rayning downe upon the Seas againe, the Seas by ſecret conduits and channells tranſmitting them into the earth like veines ramifying themſelves and bubbling up in fountaines, rivers, and brookes, &c. The Sunne and ſtarres infuſing their force upon all Creatures, and vegetables : The Moone hers upon the Sea. *Apuleius* as in his *tractat de Mundo Luna, & Dec;* *Socrates* aimes at this above ſpoken: So *Herodotus* when he enquired at the *Athiopian* and *Egyptian* Gymnoſophiſts what they thought of the Eternitie of the Word, had for anſwere, That ſince their firſt King of whom they ſhew him the picture exquiſitely done, There had runne out a leven thouſand and ſo many hundred yeares, and that by their obſervations, the Sunne had changed foure times his ordinary courſe, and the heavens theirs alſo.

And *Diodorus* ſetteth downe that in his dayes the *Chaldeans* kept Regiſter of foure hundreth thouſand yeares ſince the firſt beginning, which admit, were but *Lunarie* (which is problematicke nevertheleſſe) it is above all meaſure farre beyond the reckoning of their neighbours the *Iewes*: To this opinion of the *Egyptian* and *Indian* Gymnoſophiſts, favouring the Eternitie of the World, may be added the opinion of the *Materiarie Philoſophers*, who howbeit they admit the beautie of the World to have come unto it with time, yet they hold confidently that the *Chaos* and matter it ſelfe (whence I call them Materiarcy) was coetanean and contemporary from all beginning with the Maker,

The Gymnoſophiſts anſwere concerning the Eternitie.

Maker: Of this opinion was *Hesiod* in his *Theogonia* saying,

παντῶν μὲν πρώτιστα χαὸς, &c.

Now to speake of the divers opinions of the other old Philosophers who admitted a beginning to this world, and what principalls they supposed for it.

The Philosophicall differences concerning the beginning of the World.

Heraclitus was of opinion that the world was begunne with fire, and that by the fatall order of the Destinies, it should bee destroyed by it againe, and dissolved in flames; yet in such sort, that after some ages thus being purified, it should be renewed againe, which *Leo Hebræus* some way admits.

Thales againe would have the beginning of it to have beene of water, having fished that out of *Homer* as it seemeth and *Virgil* from him againe:

At nos interram lympham vertaminor omnes.

And we often reade in *Homer* and *Virgil*, *pater oceanus*.

The fond conceites of those who imagined all things to be by the encounter of *Atoms*.

But what more foolish or idle conceit than that of *Democritus* and *Leucippus*, who imagined the beginning of the world and of all contained therein to have beene by the casuall encounter of *Atoms* (which are little infectile bodies (not unlike the Moates which wee see to tumble and rowle about in the Sunne beames, when they pierce any glasse-window or cranice, whose encounter like unto these, say they, doe either perpendiculagor or obliquely, sphericall or angularly, crowde together this

this globe, and all the diverſities in it, whereof indeede I may ſay with the *Satyriſts*:

Spectatum ad miſsir ſum teneatis amiei?

This is that which *Virgil* ſavoreth when he bringeth in old *Silenus* his *Canto* to this purpoſe, in theſe words:

Nemque canebat uti magnum per inane coacta
Semina, terrarumq; animaq; mariſq; fuiſſent
Et liquidi ſimul ignis ut his exordia primis
Omnia
——& ipſe etiam mundi concreverit orbis.

All which opinions in this may be refuted, that they derogate too much from the power of God, whether they would have had the world eternall, or of any preexiſting water, inſomuch as they thought not him who is able to draw light out of darkeneſſe, ſufficient to have framed by his very Word all this Fabricke of nothing, or yet if this *Chaos* had beene drowned in oblivion, and ſunck in darkneſſe, not to have raiſed and reframed a new one, by the ſame Word and his power.

Atheological obſervation upon the premiſſes.

SECT. 8.

The most approved opinion of all Philosophers concerning the Worlds beginning and matter: the infallible truth of it; and a checke of Augustines *against over curious inquisitors after those and the like misteries.*

THe more tolerable opinion was of those who held all things to be composed in time of the foure elements; admitting the Creatures of the Etheriall Region to bee of a like kinde and species with these of the Sublunary, and yet they thought not that any thing of them could be, but by some preëxisting matter.

Whereas we hold sacred anchor of veritie, that the mightie infinite, eternall, and all-powerfull God, created this World of nothing in and with time about five thousand sixe hundereth and odde yeares agoe, and that hee shall destroy it in time knowne onely to himselfe.

Our Christian beleefe touching the Worlds beginning and ending.

And if they aske what God was doing before this short number of yeeres; We answere with S. *Augustine* replying to such curious questioners, that he was framing Hell for them. Seeing then it was created, and with time, it cannot therefore be eternall: (these two being repugnant and incompatible *ad idem* as we say) which indeed to mortall men in-

lightned

lightned but with nature only, is hard to beleeve: As for *Trismegistus* in his *Pœmander*, and *Plato* in his *Timeo*, what they have spoken more divinely than others herein, no question but they have fished it out of *Moyses* his *Pentateuch*, who flourished before them, as *Diodorus* and *Iosephus* both witnesse.

SECT. 9.

How Philosophers differ from Christians in the wayes whereby God is knowne; the Parts whereof the world is composed; the division of the Cœlestiall Spheares, wherein severall varieties may be observed.

THere are three wayes of knowing God; first affirmatively by which, what ever good is in man, they with us acknowledged to be in God, in a supereminent manner, and *in abstracto* (as we say in the schooles) Secondly, by denying what ever evill is in man, can any wayes be in God which is called the way of negation; But in the third way which is called the way of causation, by which we acknowledge God to be the causer of all things only. There they did mistake in so farre as they imputed the cause of many things to a continued series and a perennall succeeding of one thing to another, for although Saint *Augustine*, *Lib.* 2. *de civitate dei. cap.* 17. and 4. holds that nature hath characterised that much in every one, to know the

Three wayes of knowing God.

finger of God in their Fabricke. For that which to us Christians are as undoubted truths, to them were dubitable grounds, grounded upon their physicall maxime. That *ex nihilo, nihil fiet*.

A briefe description of the World.

But leaving these opinions of Philosophers (as almost al Cosmographers do) I divide the world into two parts Cælestiall and Elementary; for the Almighty hath so disposed and linked them together, That the Elementary or lower world cannot subsist without the Celestiall; Her vertue, power, motion, and influences; for effectuating whereof the heavens are framed like a concaved Globe, or a hollow Bowle, whose center or middle body is this earth, environed about with these heavens, distant equally at all parts from it.

The Celestiall Region, which properly is all the bounds betwixt the Sphere of the Moone, and the highest heavens comprehendeth in it eight Starrie Orbes, of which eight; seaven Plannets have their spheares betwixt the starrie firmament and the ayre: but so set that every ones orbe is lesser than the other, untill they reach the Moones; which is the least, last, and lowest spheare of all.

The division of the heavens and Cœlestiall Spheares.

The eight orbe which is the starrie firmament comprehendeth all the rest of the fixed starres, and under it the planetary spheares before mentioned; But yet so, that it againe is environed by one greater, more ample and capacious, called the ninth spheare; And this ninth is girt about againe by that most supreme of al, called the tenth or *primum mobile*, above which againe is the Emperian or Christa-

Chriſtaline heaven, which is the domicile and habitation of the bleſſed Spirits.

The tenth ſpheare or *primum mobile*, is that in order, by whoſe perennall revolution, the ſtarrie firmament and all the reſt are rowled and wheeled about in the ſpace of 24 houres from Eaſt to Weſt, upon the two Poles of th world called the South and North, or Polearticke or Antarticke.

Hic vertex nobis ſemper ſublimis at illum
Sub pedibus ſtyx atra videt, maneſque profundi.

The Plannets and their retrodations in their propes ſpheares.

And yet that revolution is not ſo ſwift, but that the Plannets have every one their owne courſe and motions, and that from the Weſt to the Eaſt upon other Poles; by the Aſtronomers called *Zodiack* Poles: Nor is each Plannets courſe aalike ſwift and rapid for the Moones courſe through the *Zodiack* is ended in one moneth. The Sunnes in a yeare and ſo forth of the reſt: So that Saturne finiſhed his but in 30 yeares, Iupiter his in 12. And Mars in leſſe and fewer, to wit in 2. Venus, and Mercury whoſe place is next below the Sunne, in the like ſpace with the Sunne; but by reaſon of their changing by retrogradation and progreſſion, they are ſometimes before the Sunne in the morning, and ſometime behinde at evening, and at othertimes ſo neere him that they cannot bee ſeene: finally the Moone as remoteſt from the firſt Mover or tenth heaven, is ſwifteſt in her owne peculiar motion through the *Zodiack*, which ſhee endeth (as I was ſaying)

in 27. dayes and ſome odde houres. Neither thinke it ſtrange although the change fall not untill the 29. and a litle more; the reaſon being, that during the time of 27. dayes wherein the Moone goeth thorough the Zodiack, the Sunne in the meane time by his peculiar motion hath gone 27 degrees forward in that ſame Zodiack; which ſpace the Moone muſt yet meaſure before ſhee can be in Conjunction with the Sunne, which in effect is the change. So they two are to be diſtinguiſhed, the Periodick motion of the Moone, & her Lunation from change to change.

Cauſe of the Moones change.

All theſe motions of the Starres, our Aſtronomers have found out by viſible demonſtrations; as for a peculiar motion allotted to them beſides, it is a thing of ſome further conſideration. *Ariſtotle*, and the Aſtronomers of that age doe teach, that the eight Spheare, commonly called the Firmament of fixed ſtarres, is the higheſt and next to the firſt movable; yet the later Aſtronomers obſerving in the fixed ſtarres, beſide the daily revolution of 24 houres, another motion from Weſt to Eaſt, upon the Poles of the Zodiack, in regard one ſimple body (ſuch as is the Firmament) cannot have but one motion of it ſelfe, have concluded, that above the Firmament of fixed ſtarres, there behoved to be a ninth heaven: And laſt of all the later Aſtronomers (and chiefly the *Arabs*) obſerving in the fixed ſtarres a third motion, (called by them *Motus trepidationis*, or trembling motion) from North to South, and from South to North, upon its owne

Different motions of the Starres.

Poles

Poles in the beginning of *Aries* and *Libra*, have hereupon inferred, that there is yet above all these a tenth heaven, which is the first moveable in 24. houres, moving round about from East to West upon the Poles of the World, and in the same space drawing about with it the nine inferiour heavens; and the ninth heaven upon the Poles of the Zodiack, making a slower motion to the East, measureth but one degree in one hundreth yeares, and therefore cannot absolve its course before six and thirty thousand yeares; which space is called the great Platonick yeare, because *Plato* beleeved, that after the end thereof, the heavens should renew all things as they had beene in former times, seeing they returned to their first course; so that then hee should bee teaching those same Schollers in the same Schoole: whereby it seemeth, that this motion was not unknowne in his time. The slowneſſe of this motion proceeding from the neereneſſe to the first moveable, like as the eight Orbe or Firmament finisheth its trembling motion in 7000. yeares; but of this trembling motion as also of the number, motions, and aspects of the Starres, who lists to reade *Ioannes Herpinus* his Apologie for *Bodin* against *Ferrerius*, shall rest marvellously contented.

What the great Platonick Starre was.

SECT. 10.

SECT. 10.

The order of the Elements, with ſome obſervations of the Ayre and Water.

NOw betwixt the Spheare of the Moone and the Earth and Waters, is the Element of Ayre, next after the Element of fire, filling up all that vaſt intecſtice, divided in three Regions, whoſe middle Region by Anteperiſtaſis (as we ſay) of the ſupreame one ever hot; and the lower ones now hot, now ſomewhat cold, is ever cold, and ſo is made the receptacle of all our Meteors, Raine, Haile, Snow, and ſo forth, framed there accordingly as the matter elevated from the earth and waters is either hot, moiſt, dry, cold, high or low.

Next to the Element of the Ayre, is the Element of Water and Earth, which two make but one Globe, whoſe uppermoſt ſuperficies is breathed upon with the incumbing and environing Ayre.

The Waters and Earth make but one Globe.

Theſe two are the center to the Globe and environing heavens; the great Ocean (by *Homer* and *Virgil* called *Pater Oceanus*) which compaſſeth the earth, and windeth about it; as it is father to all other floods, fountaines, brookes, bayes, lakes, which doe divide themſelves through the whole body and upon the face of the Earth, like ſo many veines

veines ſhedde abroad and diſperſed thorough our humane bodies, whoſe ſource and ſpring is from the Liver; ſo hath it divers denominations from the Coaſts it bedeweth, as *Britannick*, *Atlantick*, *Æthiopick*, *Indick*, and ſo forth.

Now the reaſon why the Seas which are higher than the Earth, doe not overflow it (ſeeing it is a matter fluxible of it ſelfe) cannot bee better given by a Naturaliſt, (ſetting aſide Gods eternall ordinance) than that the waters having their owne bounds from the bordering circumferences, doe alwayes incline and tend thither.

Why the Seas debarr'd from overflowing the Earth.

Præſcriptas metuens tranſcendere metas.

SECT. 11.

Of the Earth, that it is the loweſt of all the Elements; its diviſion, firſt into three, then into foure parts; and ſome different opinions concerning them reconciled.

THe Earth is as the heavieſt, ſo the loweſt; *ſubſidit tellus* though divers admit not the waters to bee higher than the earth; of which opinion *Plato* ſeemes to mee to be, placing the ſpring of Rivers and Fountaines *in orco* or cavities of the earth.

The former opinion our famous *Buchanan* elegantly illuſtrateth, in his firſt Booke *de Sphæra*,

Aſpice cum plenis è littore concita velis
Puppis eat, ſenſim ſe ſubducente Carina
Linteaque & ſummo apparent Carcheſia malo
Nec minus è navi terram ſpectantibus unda
In medio aſſurgens, &c.

Which argueth rather the Earth to be round, not that the Seas or waters are higher than it: ſo it may be confidently enough ſaid, that the water is above, about, and in the Earth, yea and diſperſed thorough it, as the blood is diffuſed and diſperſed thorough the body of man or beaſt, from its ſpring the Liver, the *Orcum* (as we may ſay) of it.

Diviſion of the Earth.

This Earth alwayes by the Geographers of old was divided into three parts, *viz. Europe*, *Aſia*, *Africk*, not knowing any further, but ſuffereth now a new partition or diviſion; ſince the dayes of *Columbus*, who in the yeare 1492, by an enterprize (to the eternall memory of his name) made diſcovery of *America*, added by our moderne Mappes as a fourth part, which (according to our late Navigators and diſcoverers, ſhall bee found to exceede the other three in extent; from whence the gold and ſilver commeth hither as Merchant wares, occaſioning all the dearth we have now, conſidering how things were in value the dayes of our Fathers, as *Bodin*, in his paradoxes againſt *Maleſtrot*, averreth; ſo that the profuſe giving of their gold for our trifles, through the abundance of their inexhauſtible gold mynes, maketh now, by the abundance of money, which formerly was not; that a thing ſhall coſt ten, yea twenty, which before was had for one or two.

Of *America*.

What maketh all things ſo deare now.

Mer-

Mercator, that moſt expert Coſmographer, expecteth as yet the fifth part of the Earth, intituling it *Terra Auſtralis*; the *Spaniards* in their Cardes, *Terra dell fuego*, which muſt be by South, that Sea deſcried by *Magellanes*: So that by his ſupputation the world ſhall be divided yet in three, making *Europe*, *Aſia*, *Africk* but one, as but one Continent, which in effect it is; *America*, and this looked for *terra Auſtralis*, the other two.

SECT. 12.

Of the different profeſſions of Religion in the ſeverall parts of the world: what Countries and Ilands are contained within Europe, and what within Aſia.

BVt leaving thoſe two laſt parts (as moſt remote from our commerce and knowledge) of *Europe*, *Africk*, and *Aſia*, thus much I finde in Coſmographers, that ſcarce the fourth part of theſe three is Chriſtians, and yet thoſe Chriſtians differing amongſt themſelves; the *Greeke* Church differing in five principall points from the *Roman*, that from the *Proteſtants*; and the other amongſt themſelves.

Of our old known world, the third part is not Chriſtian, and that as yet different amongſt it ſelfe.

For not to ſpeake of *Europe* where Chriſtianiſme is gloriouſly profeſſed, conſiſting of *Spaine*, *Portugall*, *France*, *Italy*, *Greece*, *Thracia*, *Germany*, *Hungary*, *Ruſland*, *Poll*, *Sweden*, *Denmarke*, *Gothland*, of

the Ilands lying in the Ocean, as *Brittaine, Ireland, Iſland, Greencland.*

In the *Mediterranean*, as *Cicilie, Rhodes, Malta, Cyprus, Corſica, Sardinia, Candia, Majorica, Minorica,* and ſome few others; if we ſhall but overlooke the large & plentifull bounds of *Aſia*, illuſtrious in this, that the Hiſtory of the Creation and Redemption of the world was eſpecially accompliſhed in it, with the places wherein were the largeſt Monarchies, (ſo much blazed in Hiſtories) in all this I ſay ſhall be found litle or nothing of Chriſtianiſme.

Diviſion of *Aſia.*

For to divide it in five maine Principalities, or rather Monarchies (whereof now it conſiſteth) to wit, in that of the great Dutchie of *Muſcovia* or *Ruſsia*, (a good part whereof is in *Europe*) in the great *Cham* of *Tartary* his Empire, both theſe two lying or reaching to the North; In the Empire of *China*, whoſe Lord by them is called the Soveraigne of the Earth, the Sonne of heaven: In the Monarchie of the Sophie of *Perſia*, lying in the boſome of that part of the world; and in the *Turkiſh* Empire, together with the *Indian* Monarchie.

SECT. 13.

SECT. 13.

With what Religions and Sects all the Easterne and Northerne Countries are possessed, and in what places Christianity is most professed, &c.

WHat in all these (I say) of our Christian Religion but little, and where there is any, it is so mixed with Iudaisme and Paganisme as is a wonder; for in *Iappan*, and thorough all the East *Indies*, howbeit the Iesuites indeede have laboured to draw them to Christianisme, yet their Histories record how and what way they are mixed; And to winde about againe towards *Athiopia* and *Prester Iohn* his estate, reputed Soveraigne and Monarch over forty or fifty Kings and Provinces: There are there also some footesteps of our profession, but as elsewhere, so intoxicated with Iudaisme, that besides divers other points, they are promiscuously circumcised and baptised: Then to passe by *Egypt*, next neighbour, how it is all enslaved to the *Mahumetans*, all know: In what better case are the *Africans*, the *Numids*, *Maurs*, *Barbars*; and then in and about the *Atlantick* coast, these of *Fez* and *Marroco*, and so forth. So it hath pleased God the Maker, to chastise the world for the sinnes of men; in which although light hath cleerely shined, yet they have delighted more in darknes than in it.

The West and East parts.

I will not say but in *Muſco*, *Tartary*, *China*, and *Perſia* there be ſome Chriſtians alſo; but theſe are commonly *Greekes* by profeſſion, and yet ſo farre rent aſunder and eclipſed from the true doctrine acknowledged by S. *Paul* to the *Corinthians*, *Epheſians*, *Philippians*, and the reſt, as is pittifull: divided amongſt themſelves in divers Sects, as *Neſtorians*, *Iacobites*, *Georgians*, *Armenians*, *Copits*, *&c.* thus diſperſed thorough all the Eaſterne Church; they obtrude unto us of the Weſterne too, that we are Schiſmaticks, and ſevered amongſt our ſelves likewiſe, as *Papiſts*, *Anabaptiſts*, *Lutherans*, *Calviniſts*, *&c.*

Nether are the *Negro* Princes of *Africk*, the *Turkes* and *Mahumetans*, and all the other idolatrous people and Nations of the South, ſo in accord amongſt themſelves, that they are free from diviſion; for *Leo Afer* in the third Booke of his Hiſtorie, quoteth particularly their differences and diviſions; for the *Turkes* foure great Doctors and *Mahomete* ſucceſſors are divided in 72 ſeverall Sects, which are extended and diſperſed thorough all the *Turkes* Dominions, in *Europe*, *Africk*, *Aſia*; alwayes the reſt of the World, as *Terra Auſtralis*, and all *America*, except in ſuch parts where the late Conqueſts are made by the *Spaniards*, *Engliſh*, and *French* are ſo farre from Chriſtianity, that they dwell all in the profoundeſt darknes of moſt groſſe Paganiſme, ſerving and adoring the Devill and his excruciating ſpirits; ſacrificing their children, and thoſe of the beſt ſort, either to pacifie their ire, or to conciliate their favour.

Turkiſh profeſſors divided amongſt themſelves.

SECT.

SECT. 15.

America *and the* New-found-lands *briefly described; and some opinions about what time of the yeare the world had its beginning.*

I Can speake nothing of *Terra Australis* or *Incognita*; as for *America*, I finde in the Mappe of the new found world, that although it be almost all continent, yet in a manner it is divided in two Ilands, but so that they are made contiguous by nature, by a little Tract of Land or Isthmos, where their principall and Metropolitane Citie standeth, called *Mexico*; a brave Citie indeede, lying in that Bay.

A litle description of *America*, and the New-found-lands.

The Peninsule, or Northerly part of this *America* containeth in it *Hispania nova*, the Province of *Mexico*, *Terra florida*, *Terra nova*, *Virginia*, *nova Francia*, *nova Scotia*; further North is not yet discovered: The Southerne Peninsule againe reaching towards *Magellane*; and that part containeth *Peru*, *Brasil*, *&c.*

This is the whole world as yet knowne, of which *Plinius* in the second Booke *Naturalis Historiæ*, (which you may be sure was long before the discovery of this *America*) speaketh, when hee raileth against the covetousnesse of Princes, who incroached upon others limits; and mens ambition in con-

conquering pieces and lumpes of inheritances here and there; not taking heede, that so little a piece of ground must containe the best and worthiest Monarchy in the end.

Which world hath neither beene made over againe, and recreated as a thing with time worne and growne old, needeth restauration; of which opinion was *Philo Hebreus* out of *Theophrast*; neither yet was it from all eternity, which *Aristotle* in his 3. *cap. lib.* 1. *de cælo* giveth way to, saying, that to be created and to be from all beginning, are ἀδύνατα, & *de numero impossibilium*: But, on the contrary, wee have a warrant that it is, and was created, and that consequently it shall have an end, when it shall please the Maker thereof to bring on that period of time; at which, howbeit both Divines and Philosophers have conjectured, yet punctually to say when, the Angels of heaven know it not, much lesse they; uncertaine it is likewise, at what time of the yeare it did begin; although the Rabins, and many Christians following them (as *Bodin* in his Republick, and his Apologetick friend *Herpinus*) accurately maintain, that it began in *September*, which *September* is with them *mensis Nisan*; and I could be induced to that same beliefe: yet more probably the Spring of the yeare may be thought to bee the time when the world began, as the day beginneth with the morning, and as the sunne riseth upon our Horizon with the day. And howsoever the authority of fabulous Poets should not serve to instance a matter of so high an importance, yet *Virgill*

What time of the yeare the world was created.

gill his testimony in his fourth *Georgicks*, is not wholly to be slighted.

Haud alios prima crescentis origine mundi
Illuxisse dies, aliumve habuisse tenorem
Crediderim: ver illud erat, ver magnus agebat.
Orbis & Hybernis parcebant flatibus Euri.

SECT. 15.

Wherein is to be seene some things concerning the time when it is thought to take an end.

DIvers (you see) have beene the opinions of the Worlds beginning, number, and ending also: some thinking it eternall, others corruptible, and those also differing among themselves.

Cyprian Ludovicus (whom *Iohannes Bodin* refuteth in his *cap.* of the changes of States) presumeth the yeare when this dissolution shall bee, may be knowne: howsoever wee should hold us to the written word of God, as to a holy Anchor; in which as we learne that it had a beginning, so must we know that it shall have an end; and rather to be preparing for the approach of it, than curiously and superstitiously tobe inquiring when that shall be; seeing it hath not pleased God to make it knowne; for where God in the Scripture hath not a tongue to speake, we should have none to enquire or aske, or an eare to heare: I will relate the

opinions of ſome in this point, among which, in my opinion, the *Arabs*, *Moores*, and with them the *Iewes*, as particularly *Albumazar* a *Cabaliſt*, have by all likelihood conjectured beſt the time of its diſſolution, than any before either *Chaldean* or *Egyptian* have done.

When probably it may be thought to take an end.

For, within theſe few hundred yeares they have diſcovered the Caball and ſecret of the trembling motion of the eight Orbe, that it doth not accompliſh its courſe but in ſeven thouſand yeares; which in Analogy and relation is ſome way anſwerable to the ſeventh yeares reſt of the Earth, the ſeventh dayes reſt from labour: So that indeede by *Leo Hebreus* his opinion, the world ſhould laſt but 6000 years, & reſt the ſeventh; which opinion is founded upon the *c. helek*, in the *Iewiſh Sanhedrim*; where it is written, 6000 yeares the world ſhall laſt, & then it ſhall decay: which *Lactantius lib. 7. cap. 14.* illuſtrateth, comparing the ſix thouſand yeares to the ſix dayes of the weekes labour, the ſeventh to the Saboaths reſt: our ancient both Poets and Oratours have all given after ages to underſtand, that they all, I ſay, almoſt knew generally that its deſtruction was to come in the appointed time by the Fates. Although as wiſer than us their ſucceſſors did not touch the queſtion, as *Plato* in his *Timeo*; *Cicero* in his Booke *de natura Deorum*; *Macrobius c. 10. de ſomno Scipionis*: and for them all *Ovid. us lib. 1. Metamorph.*

Eſſe quoque in fatis reminiſcitur affore tempus,

Quo

Quo mare, quo tellus, corruptaque regio cœli
Ardeat, & mundi moles operosa laboret.

SECT. 16.

Copernicus *his opinion of the Earths moving, confuted:* Archimedes *opinion of the world: an Induction to the following Section.*

NExt unto this, I subjoyne the franticke and strange opinion of *Copernicus*, who taketh on him to demonstrate, speaking of the worlds frame, that the Sunne is immoveable and placed in the Center of the World, and that the Globe of the Earth is moveable, rolling and wheeling about, admitting the change of States to depend upon the Eccentrick of the Earth; so that hee giveth not onely to the said Earth a daily running about the Sunne in 24 houres, in the space of the day and night, but likewise an annuall revolution; which opinion how absurd it is, as Nature convinceth it of errour, so authorities of the Learned shall confound it: for besides that, in Scripture we have warra nt, that the Earth is stablished sure ——

Copernick his opinion that the Earth did move, rejected.

—— *Stat nullo mobilis ævo*
Terra, super solidæ nitens fundamina molis
Pollenti stabilita manu.

Moreover *Archimedes* the rarest Mathemati-

tian that erſt was or ſince hath beene, and who cauſed to be engraven upon his Tombe in *Sicilie* the Spheare, with this admirable poſition.

——*Datur pondus movere.*

Granted to King *Hieron* of *Siracuſa*, that there was no weight which he could not move; And that if there were any other earth beſide this whereon he might eſtabliſh his Machin, and Mathematicall Inſtruments, he durſt undertake to move this out of its place, whereon we dwell; By which he would have us know, that the earth budged nor moved not, much leſſe in ſuch celeritie to compaſſe the Sunne, as *Copernicke* eſteemed.

Why the change of Ttiplicities cannot be aground for change of States.

Laſtly, I am to evert that ground of ſome too curious Aſtrologers, who upon the change of *Triplicities*, undertake alſo to found the change and alteration, which they would prove upon the face of the earth, both in the nature of the ground, and in the qualities of people: But becauſe the Word of Triplicitie is not ſo uſuall as that every one underſtandeth it aright, therefore thus much for the intelligibleneſſe of it in the following Section.

SECT.

SECT. 17.

The division of the starrie firmament, in twelve houres; of the Power and efficacie that is attributed to the Triplicities of them over every Country: and the maintainers of these opinions confuted: the divers dispositions of people of severall nations, how attributed to the naturall disposition of the Planets: An observation of Gods Providence.

THe body of the Starrie firmament which with our eyes we see, by the moderne, at least not very old *Arabs*, and *Moores* (who first found out the trembling motion of it, as they hold called by them *Motus trepidationis*) is divided in twelve houses, which for more cleerenesse, and intelligiblenesse are more compendiously packt up in foure, every one of the foure answerable to a corner of it; as we see in Scripture the foure Winds mentioned; To every one of which foure againe, there are three houses or Asterismes appropriated.

The starrie firmament devided in so many Asterismes.

These houses or starres belonging to them are observed to appertaine to the Region upon which they glanced first: So that what ever nature either the people or ground there at the first influence or aspect of that house had thereupon, by this trembling motion of theirs, the Triplicitie having chan-

ged about is transported to another Region, which is another thing than the Triplicitie set downe, or at the least alleadged so by *Ptolomie* in his booke *Quadripartit*, whereof *Bodin* maketh mention in his fourth *de Republica*: Allotting the Triplicitie of fire to *Europe*, of Water to *Africa*; to *Asia* Septentrinall and Orientall Ayre, and the Triplicitie of earth to *Asia* meridionall. To say that the fixed starres in these houses of theirs, by the trembling motion of their Orbe; had changed place or seate also, and thereby that they had changed the triplicitie or nature of the regions of the earth either in the qualitie of the ground, or nature of the people, were most absurd, and capable to subvert all the Maximes of Iudiciary Astrologie concerning the Horoscopie of men and Cities; which hold as true now as they did this day two thousand yeares, as *Cardan* averreth, who held *Ptolomeus* his *Maximes* in that point, which he againe had from the *Caldeans* and *Ægyptians*, amongst whom there is not a word of these triplicities.

Bodin his triplicitie is not such.

For to say with *Haly Arab*, that *Ptolomie* obscured it amongst his writs, to make it a caball and secret, argueth it selfe of falshood, as being unlikely that he had interred and smothered so rare a secret, or yet made it a caball which otherwayes might have added so much lustre to his workes.

But so it is on the contrary, that notwithstanding all these alleadged changes of triplicities, we see these same proprieties of Cœlestiall signes; which

Cardan

Cardan and *Iulius Maternus* obſerved by *Caldeans* and *Ægyptians* ſtand good in ſuch ſort, that not onely the Elements and Elementary things, Reptiles, Plants, Animalls, with all living and moving creatures of all ſpecies and kindes mineralls, &c. keepe that ſame frame and figure without, and nature within which they had at firſt ingraft and ingraven, and primitively characteriſed in and upon them; But alſo we ſee the ſeaſons of the yeare, nights and dayes, Sunne, Moone, and Sarres, to obſerve their conſtant and equall courſe which from all beginning was impoſed upon them.

The changing of triplicities notable to change the nature of things; and Why?

Whereby even now as before, we ſee the people of the North different from theſe of the South in nature, Stature complexion, colour, diſpoſition, as at more length I have ſet downe in my Title of the diverſitie of mens humors: And that not onely by authoritie of famous writers who have deſcribed them to bee juſt ſo then, as now yet wee ſee them; But likewiſe conforme to the poſiture of the very body of the heavens themſelves. So that in a manner the nature and ſeate of the Plannets argueth of neceſſitie the nature of the people to which they ſhall be found to appertaine.

Diverſities of peoples natures conformeable to the poſiture of the heavenly Plannets,

As *Saturne* to the Meridionall and Southernely people, a dry and Melancholious Starre: *Mars*, to the Septentrionall, as ſtrong and luſtier *Iupiter* againe, father of light and life equall to both: *Venus* for the Southerne, as more laſcivious than the other: The Moone for us in the North againe as more

more moyſt and unconſtant than they, while *Mercurie* ſhall be equall almoſt for both: But more enclyning to the Southerne, as being better ſpirits; for from them eloquence, and contemplative Sciences doe flow unto us: As from us to them Miriads of luſtie great people, which overranne all their fertill provinces: And if it be objected, how it comes to paſſe ſeeing *Venus* and laſciviouſneſſe are attributed to them, that they ſhould bee leſſe populous than we; To this I anſwere, That their women in numbers farre exceed their men. Thus *Polygamie* was and is ſo frequent amongſt them, for if according to their wits they were both ſtrong and numerous, the World could not abide them: Thus the Al-ſeeing God hath diſpoſed things wiſely in this world, that the worſt and ſubtileſt creatures are feweſt in number; as Lyons, Foxes, Wolves, Leopards, whereas the weaker and more Innocuous ſort are more frequent, as Sheepe, Beeves, Hart, Hinde, and ſo forth.

The naturall diſpoſition of the Plannets argueth the Inclination of people over which they are planted.

SECT.

SECT. 18.

The causes of the Changes of severall things as of men, Countries; plots of ground, &c. and that these proceede not from triplicities as Astrologers would have it.

NOw if so be that some of the people have changed any whit of their former innated Natures, That must not be imputed so much to the change of Triplicities as to education, and the commerce of other more politicke Nations, which is more frequent than before; formerly it being counted a rare thing for a man to make a voyage to *Spaine* or *Portugall*, whereas now new found worlds and people of other countenances, are nothing so strange and wonderfull unto us.

If people be changed from that which they were wont to be, Why? and How?

Finally, that some Countries, or rather Grounds, are become more barren than they were, that men are more weake, and lower of stature than they were; must not bee imputed to their triplicities, but rather it argueth the wrath of God upon the earth for the Sinnes of Mortalls, the inhabitants thereof, and in like manner, the decaying age of the World, as in plentifulnesse, so in vertue: for if the Luxurious plentie of *Sicily*, *Asia* the lesser, of *Egypt* on the other side againe; and *Barbarie*; if by these triplicities they are changed, I pray you, where is it?

If some Countries be barren, others plentifull, Why, and How?

for my owne part whereſoever I have beene, whatſoever I heare or reade, nothing but univerſall complaints of the Earths waxing worſe and worſe: I end this with that of *Plinius* in his Naturall Hiſtory, complaining upon the badneſſe of the times in his dayes to that they were before.

Gaudebat terra triumphali aratore
& laureato vomere ſubigi.

This was when the Emperours themſelves tooke pleaſure in Agriculture, leaving their Scepters, to betake themſelves to the Plough.

SECT. 19.

How ancient Writers have compared Man and all his parts to the World and all its parts; wherein is recounted the different diſpoſitions of men of different Countries, and to what Countries the faculti s of the ſoule are attributed.

AS theſe above-cited Writers and many others have gone about with moſt apparent reaſons to attribute the temperament of ſeverall Countries, and the ſeverall diſpoſitions and complexions of men in thoſe Countries, to the ſite and diſpoſition of the Planets that governe over ſuch and ſuch places and men; ſo they inſtance many inducing examples for the proofe of it.

One of them in comparing the great World to the little

little world [Man,] willeth us to imagine a Man, walking or laid, according to the naturall motion of the ſuperiour bodies, from Eaſt to Weſt; and wee ſhall evidently perceive, that his right Arme, (wherein his greateſt ſtrength and vigour is) and his right Side, (where the Liver and Gall are placed) are towards the North; and the left hand and ſide (which is called the feminine part) towards the South; whereupon it is inferred, that according to this and the poſture of the celeſtiall Bodies, the place and people of the world, that the right ſide beholdeth, which are the Northerne (wherein the Eaſterne are comprehended) are ſtrong and luſty, where the people of the oppoſite part of the world, are more weake and laſh.

Man compared to the World.

The one faire and lovely, the other browniſh, ſwarthy and hard favoured; the one cold and moyſt, the other hot and dry; the one given to labour and travell, the other to ſtudy and contemplation; the one joviall and merry, the other mellancholick and grave; the one ſimple and no wayes malicious, the other crafty and deceitfull; the one inconſtant, the other pertinacious, never ſwarving from his intended reſolutions; the one prodigall, the other parcimonious and ſparing; the one affable and facill, the other arrogant and ſtayed; the one mercifull, the other cruell and revengefull; the one chaſte and baſhfull, the other venereous and affronted; the one impatient, the other long ſuffering; the one in Counſell raſh and ſudden the other more conſtant & deliberate, with ſeverall o-

Qualities of the Northern and Eaſterne people.

ther the like qualities, wherein the one halfe of the world North and Eaſt, doe differ from the other, South and Weſt: All which they doe back with many forcible Reaſons, in ſo farre, that there is not any part in the Microcoſme Man, to which they doe not aſſimilate ſome part of the great World: yea the three principall faculties of the ſoule, Imagination, Reaſon, and Vnderſtanding are attributed to three parts of the World.

The three faculties of the Soule.

Imagination, which is proper for meditations of divine and ſublime Sciences, which conſiſt not in demonſtration and Reaſon, but on a naked and ſimple beliefe, is appropriated to the *Meridionales* or Southerne people, who of all others are moſt carried away with ſuperſtitions.

The ſecond Reaſon, to the Mid-people, participating of both extreames, betwixt the religionary Southerne, and the laborious, induſtrious, and warlike Northerne.

The third, which is Vnderſtanding, to the Northerne, who have more ſtrong and robuſtuous bodies, fitter for labour and handy-workes than the other two.

Concluſion.

So, (as ſuccinctly as I could) I have given you a reliſh, what the moſt learned have both written and thought of the world, and its parts till a fitter time, wherein (God willing) you ſhall receive a more ample content in this and other things.

A GENERALL INTRODVCTION AND INCITEMENT To the ſtudie of the METAPHYSICKS:

Wherein the moſt excellent ends *and uſes thereof are illuſtrated, and how neceſ-* ſary it is to be underſtood by Chriſtians.

SECT. 1.

Of the ſeverall titles and appellations that have beene given by Heathnick and Chriſtian Philoſophers to Metaphyſick; the reaſons wherefore every of thoſe names were attributed unto it; and finally whereof it principally treateth.

THe high and ſublime Science, which we call Metaphyſick, hath divers titles and ſtyles attributed unto it, partly by *Ariſtotle* himſelfe, and partly by other Authors, as is obſerved by *Suarez* in the beginning

Metaphysick first called *Sapientia.*

of his first Metaphysicall Disputation, and by *Fonseca* in his *proœmium*, prefixed to his Commentaries upon *Aristotles* Metaphysicks cap. 8.

For first, this Science is called *Sapientia* 1 *Metaph. c.* 1. *&* 2. because it disputeth of highest and most hard matters, and of the first and most generall causes of things.

2 *Phylosophia* κατ' ἐξοχην.

Secondly it is called *Philosophia* κατ' ἐξοχην, or by way of excellencie, 4 *Metaph. cap.* 2. because it exceedeth all other parts of Philosophy in dignity very farre, and as a Queene it hath Soveraignty, and royall prerogatives above them all, prescribing unto every particular Science the bounds and limits of it, confirming or establishing the principles of them all.

3 *Prima Philosophia.*

Thirdly, it is called *prima Philosophia*, 6. *Metaph. cap.* 1. *& lib.* 2. *cap.* 6. because it treateth of most excellent matters, as of God and of the Angels, in so farre as they may be knowne, by the light of Nature: for as they are knowne to us by divine revelation, the consideration of them belongeth to Divinity.

4 *Philosophia Theologica.*

In the same respect it is called *Philosophia Theologica*, 6. *Metaph. cap.* 1. and *Scientia Theologica*, 2 *Metaph. cap.* 6. and by Christian Philosophers, who know another Theologie above, for distinctions cause, it is called *Naturalis Theologia.*

5 *Metaphysica* and why.

Last of all, it is called *Metaphysica*, which word occurreth not in *Aristotle* himselfe, but is used by his Interpreters and followers; yet it is grounded upon the titles of *Aristotles* Bookes of Metaphysicks,

ſicks, which after by *Ariſtotle* himſelfe, or by *Theophraſtus*, who is thought to have collected *Ariſtotles* Workes, and to have digeſted them in order, are intituled τὰ μετὰ τὰ φυσικὰ, *id eſt*, *poſt naturalia aut tranſnaturalia*, and that, either becauſe this Science was invented after Naturall Philoſophy, for the knowledge of the natures of bodily ſubſtances, (which is called Phyſiology) or elſe becauſe the things conſidered in it, are beyond and above the order or ranke of naturall things; that is, of groſſe and bodily ſubſtances; for it doth treate of ſpirituall and inviſible ſubſtances, *viz.* of God and of the Angels; as alſo it treateth of the attributes and notions or conceptions of entity or beeing, which are common to all things, which have a reall being, whether they be bodily ſubſtances, or ſpirituall, yea whether they be ſubſtances or accidents.

Whereof it treateth.

SECT. 2.

The Reaſons why Ariſtotle *added Metaphyſick to the other parts of Phyloſophie; and how it is diſtinguiſhed from the other Sciences.*

Ariſtotle, who is thought to be the firſt author of this ſublime and almoſt divine Science, added it to the reſt of the parts of Philoſophy, chiefly for two cauſes, as *Fonſeca* well obſerveth in the 6. chapter of the Preface to his Commentaries

Two cauſes why Metaphyſick is added to the other Sciences.

mentaries upon the Metaphyſicks.

The firſt. Firſt, becauſe in the Phyſicks theſe ſubſtances are conſidered, which are compoſed of bodily matter and forme; and in the Mathematicks, they are ſaid to be *actidentia abſtracta à materia ſecundùm rationem*; yet truely and really in their beeing or exiſtence they have a neceſſary dependencie from bodily matter, and therefore are called *Accidentia materialia*, becauſe they have their beeing in, and from groſſe and bodily ſubſtances. Now beſides theſe, there are ſome things meerely immateriall, that is, neither compoſed of bodily matter and forme, nor yet any way depending from bodily matter, (which therefore are in the Schooles ſaid to be *abſtracta à materia & ſecundùm rem & ſecundum rationem*) as God, the Angels, ſpirituall accidents *& cæt.* And therefore, as materiall ſubſtances are conſidered in the Phyſicks, and materiall accidents in the Mathematicks; ſo it was requiſite, that there ſhould be a third kinde of Science, to wit, the Metaphyſicks, for the conſideration and handling of things meerely immateriall, and independing from bodily matter.

The ſecond cauſe, Secondly, there are ſome generall degrees and conceptions of entity or beeing, as alſo ſome attributes, properties, principles, and ſome diviſions or diſtinctions, which are common to all things, whether they be bodily and materiall, or ſpirituall and immateriall, as *ens*, *eſſentia*, *exiſtentia*, *unitas*, *veritas*, *bonitas*, and the diviſions of *ens*, in *completum & incompletum*, *finitum & infinitum*, *neceſſarium*

rium & contingens, permanens & successivum, absolutum & respectivum, principium & principiatum, causam & effectum, subjectum & adjunctum, signum & signatum, mensuram & mensuratum, actum & potentiam, &c.

Now these things are transcending, and doe exceed the limits of particular and inferiour Sciences, as Physick, Geometry, Arithmetick, and the Sciences which are subalternate and subordinate to them; wherefore they cannot be handled in them, but for the handling of them there must bee some generall and transcendent Science, whose speculation is not limited to any particular *species entis*, but comprehendeth and taketh in all things under the capacity and amplitude of the object of it. And this is Metaphysick, of which we are now speaking.

Metaphysick excelleth other Sciences.

SECT. 3.

Three Reasons conducing to the praise of Metaphysick, inducing all men to the study of it; and setting downe some principall ends and uses thereof.

BY this, every man may cleerely see the necessity of this Science for the perfection of Philosophy. But it may be, that some will thinke, the consideration of these immateriall or spirituall things, of which I did speake in my first reason, as also these attributes, properties, and distinctions

which are common to things materiall and immateriall, and of which I did ſpeake in my ſecond reaſon, ſome, I ſay, will thinke the conſideration of them not to bee neceſſary, but to be more curious than profitable. But I perſwade my ſelfe, no wiſe or judicious man will thinke ſo.

A ſuppoſition reſolved.

First Reaſon. For firſt, without the knowledge of theſe generall and tranſcendent Metaphyſicall tearmes and notions or conceptions no ſolide knowledge can be had, for the ſubjects which are handled in inferiour Sciences.

Second Reaſon. Secondly, ſeeing man in reſpect of the conſtitution of his nature, is participant, both of things bodily and materiall, as alſo of things immateriall and ſpirituall, (for which cauſe by *Philo Iudeus* in his Booke *de opificio mundi*, he is called *nexus Dei & mundi*, and *rerum materialium & immaterialium horizon*) were great ſottiſhneſſe or ſtupidity in man, to labour for the knowledge of materiall and bodily things, with which he ſymbolizeth in reſpect of his baſer part, that is his body, and not to care for knowledge of ſpirituall and immateriall things, to which he is like, and as it were of kinne in reſpect of his better part, to wit, his ſoule.

Third Reaſon. Thirdly, ſeeing the happineſſe of man, I meane his contemplative or ſpeculative happineſſe, ſtandeth in the knowledge and contemplation of theſe things, which are moſt excellent and moſt ſublime, he would come very farre ſhort, of that happineſſe, if he were ignorant of theſe things, which are handled in the Metaphyſicks: for they are ſpirituall and

and immateriall, and consequently are most excellent, and also most sublime and difficult, in respect they doe farre exceede the reach of all sense and sensitive knowledge.

SECT. 4.

The excellencie and dignity of the knowledge of Metaphysick; that onely free and sublime mindes, not distracted with worldly cares are fit for this studie; and the Reasons wherefore.

I Have spoken already of the divers names and titles of this Science, of the reasons wherefore it was invented, as also of the necessity of it: Now in the last roome I will speake something of the excellencie and dignity of it. *Aristotle* in the 1. Booke of his Metaphysicks 2 chapt. saith, two things which serve very much for manifesting or declaring the excellencie of this Science, first hee saith, that it is a Science more fit and suitable for God than for men; or to give you it in his owne words, that *ejus possessio non existimari debet humana*, that is, that man is not sufficiently worthy to possesse or enjoy this Science, and that because this Science, of all Sciences, is most free; yea it onely is free from all subjection to other Sciences, and from all reference to any higher or more eminent knowledge: for all naturall knowledge can equall,

That Metaphysick is free from all subjection to other Sciences.

and much leſſe exceede the ſublimity of Metaphyſicall ſpeculation; and therefore this Science requireth a minde free and ſublime, that is, a minde not depreſſed with baſe cogitations, nor diſtracted with worldly cares, as ordinarily the mindes of men are, in reſpect of the manifold wants and neceſſities into which they are ſubject in this life. Seeing then God only is free from ſuch diſtracting and depreſſing cares, therefore in *Ariſtotles* judgement, this Science is more ſuitable for him than for men. Secondly hee ſaith, that this Science is amongſt all Sciences the moſt honourable, becauſe it is moſt divine: And that it is moſt divine, hee proveth by two very forcible reaſons, firſt becauſe this Science *verſatur in rebus divinis*, it contemplateth divine and heavenly things: and this hee proveth, becauſe it conſidereth God himſelfe as he is the firſt *principium*, and the ſupreame cauſe of all things. Secondly, becauſe *Hæc Scientia maximè â Deo habetur*, the perfect and exact knowledge of this Science moſt truely and properly is attributed to God: for this Science in a manner, vieweth and conſidereth all things; it hath an eſpeciall eye to ſpirituall and inviſible ſubſtances, and amongſt theſe it eſpecially and chiefly contemplateth God himſelfe, as the higheſt degree of entity, and the ſupreame cauſe of all things.

Reaſon.

Why the Science of Metaphyſick is moſt honourable.

Now to take a full view of all the rankes, orders, and degrees of things to have a poſitive and diſtinct knowledge of that inviſible world, the world of Angels, and above all, to have a perfect and com-

prehenſive

prehensive knowledge of that boundlesse Ocean of beeing and goodnesse which is in God, it requireth not a finite ingine or understanding, but an infinite capacity and an unspeakable sharpenesse of wit.

SECT. 5.

For three respects the Metaphysick is called the most excellent Science, and the most necessary to be understood by Christians.

BY these things which are said by *Aristotle* in that chapter, and in other parts of his workes, for the commendation of this Science, wee may see this Science to be most excellent in three respects.

First, because of the universality and amplitude of the object or subject of it; for in the Spheare or circuite of it, all rankes, orders, and degrees of things are comprehended, so that looke how farre the knowledge of the whole celestiall Globe exceedeth the knowledge of one constellation, and the knowledge of the universall Mappe or table of the whole Earth exceedeth in dignity the knowledge of the Mappe of one Province or Countrey, as farre doth Metaphysick (which is as it were one universall Carde or Mappe, presenting to our view all rankes, orders, and degrees of beeing) exceede Comparison.

in dignity these particular delineations and descriptions of things, which are set downe in inferiour Sciences.

SECT. 6.

The first respect, for the universality.

Christian Philosophers.

SEcondly, because of the dignity of the subject of it; for, not onely is this Science exercised about the speculation of the highest and most generall causes, principles, and attributes of things, but also it descendeth into a speciall consideration of the most noble and excellent things of the world, that is, of God and of his Angels: for, not onely doe Christian Philosophers now in the Metaphysicks dispute of them, but also *Aristotle* himselfe in his Metaphysicks, especially in his 12 Booke, doth most excellently discourse of them. And truely it is more than marvellous, that an Heathnick or Pagan-philosopher should, by the light of Nature, have penetrated so farre into the knowledge of God. For to passe by that which he writeth in the 10. chapter of that Booke *De unitate Dei*, proving and demonstrating, *unum esse principium & gubernatorem universi*; and concluding his discourse with that saying of the Poet:

Aristotle.

οὐκ ἀγαθὸν πολυκοιρανίη εἷς κοίρανος ἔστω.

To

To omit, I say, this discourse of his *De unitate primi motoris*, or (as he calleth God in that Booke) *primi moventis immobilis*, in the 7 chapter of that Booke, he sheweth, that God is *primum intelligibile & primum appetibile*; that is, he is *ens omnium aptissimum & dignissimum quod intelligatur & appetatur*, as *Fonseca*, commenting upon that place, doth expound it: that he *necessariò existit, & cætera omnia ab eo pendent*: that *perfectissimam & beatissimam vitam degit*; that *ejus beatitudo est perpetua, & sine intermissione aut alteratione*; that *Dei beatitudo ex sui contemplatione nascitur*; that *ejus contemplatio est ἥδιστον καὶ ἄριστον, jucundissimum quid & optimum*; that not onely *vivit vitam beatissimam*, but hee is *ipsa vita beata*; or as he speakes himselfe, *vita sempiterna & optima*. *Fonseca.*

Truely this Pagan Philosopher hath found a wonderfull joy and delight in this his speculation of the essence and happinesse of God, (as *Suarez* noteth writing upon this place, in his *Index locupletissimus in Physicam, lib. 12. cap. 7.*) yea he seemeth to have beene ravished with the sweetnesse of this heavenly contemplation. It is no wonder, that *David* in the 104 *Psalme vers.* 34. said, *My meditation of him* (that is of God) *shall be sweete, and I will bee glad in the Lord.* For if *Aristotle* found such sweetnesse in the contemplation of God, as hee is *Pater mundi*, or *Pater entium*; what sweetnesse, yea what heavenly, what ravishing joy may a man living within the Church have in the contemplation of God, as he is *Pater Ecclesiæ*, and *Pater misericordiarum*? 2 *Cor.* 1. 3. *Suarez.*

SECT. 7.

SECT. 7.

The second Respect, for the dignity. That the consideration of the soule of man belongeth to the Metaphysicks, with severall Reasons for the proofe thereof.

THere are some who thinke, that not onely the contemplation of God, and of the Angels doe belong unto the Metaphysicks, but also the contemplation *De anima humana seu rationali*; and that, because it is a spirituall or immateriall substance. *Suarez* in the first Tome of his Metaphysicks, Disput. 1. Sect. 2. Parag. 18. most justly condemneth this opinion; and that 1. because *consideratio totius, & consideratio partium ejus ad unam & eandem scientiam pertinet.*

That the consideration of mans soule, and not himselfe belongeth to Metaphysick.

Now the consideration of man himselfe belongeth not to Metaphysick, but to Physick; and therefore the consideration of the soule of man, which is a part of man, belongeth also to Physick or naturall Philosophy. 2. Albeit the soule of man be an immateriall substance in it selfe, and although in the reall beeing of it, it hath not a necessary dependencie from bodily matter, yet God hath appointed, that the ordinary and naturall existence or beeing of it, as also the operation of it, should be *in materia corporea*.

It

It is farre more probable, that which is affirmed by *Ruvius* and *Conimbricenses* in the Frontispiece of their Treatises *de anima separata à corpore*, and in their first *questio proœmialis*, before their disputes *de anima*, that the consideration of the beeing and operation of the soule *in statu separationis à corpore*, after death untill the day of the generall resurrection, doth belong not to Physick, but in some respects to Theologie, and in other respects to Metaphysick. *Ruvius* his opinion.

For the handling of these questions, [*An status separationis à corpore, sit animæ rationali naturalis; an anima à corpore separata habeat naturalem appetitum redeundi ad corpus; an anima separata specie ab Angelis differat, & quas facultates seu potentias, quas species intelligibiles, quos habitus, & quem modum cognoscendi habeat anima separata à corpore:*] the handling, I say, of these questions doth belong properly to Metaphysick; nevertheless these same Authors, whom I have now cited, as also *Suarez* in the place already spoken of, affirme, that the *Tractatus de anima separata*, may most commodiously be added to the Bookes *de anima*, not as a proper part of the Science *de anima*, but as an Appendix to it.

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THirdly and lastly, this Science exceedeth all the rest in dignity, in respect of the great use it hath in all other Sciences and Arts, especially in Theology it selfe; I neede not to insist in the confirmation of this: for it is very well known, that by the grounds of Metaphysick, wee may demonstrate against Atheists, that there is a God; against Pagans, that this God is one; against *Cerdon*, *Marcion*, and the *Manichæan* Hereticks, that there are not *duo principia*, but *unum summum & primum principium*; against the Stoickes, that there is not such a fatall necessity in all events as they dreamed of, against that damnable and detestable Heretick *Conradus Vorstius* that *Deus est infinitus, immensus, indivisibilis, simplex, totus in qualibet re in qua est, æternus, & quoad substantiam suam, & quoad ejus decreta immutabilis, & omnium accidentium expers*; for that wretched and madde Doctor denied all these things. In many other Questions and Controversies, which the Church hath against Hereticks ancient and moderne, there is great use of Metaphysick.

The benefit of the knowledge of the Metaphysicke.

Controversies.

But

But I feare to weary the Reader with these Generalls, For I intend hereafter (God willing) to put forth a small Treatise of Metaphysicks, wherein you shall finde that noble Science more perspicuously delineated.

FINIS.

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TO

TO THE READERS OF theſe Varieties.

Courteous Reader,

AS beſt deſerving Precedency I beginne at you, whoſe ſhort Character may be this: One who is accompliſhed with ſuch endowments as make an excellent man, the meaneſt whereof would blow up ſome men with ſelf-conceit, ſelfe-love, ſelfe-praiſe, and an univerſall diſparaging of others abilities; He hath learned that God diſtributeth not his gifts to all men, and makes good uſe of it; for he derideth, deſpraiſeth, nor condemneth any man, nor his workes nor actions, as being conſcious that God might have endued him with that mans ſpirits, to have produced no more admirable thing: He reades many bookes; though he may ſerve for a library himſelfe, yet his cenſure of theſe bookes he meaſureth by the Authors abilitie, good intention, and the profits it may yeeld to meaner Capacities than his, but ſo diſcreetly, that his words ſavour more of Commendation than reproach: In

a word, he is one that eſcapeth not the Venemous bites of the ignorant Rable, but hath Antidotes againſt it, Yea hee is one, who when he conſiders my Travells, ſtudies, expences, and painefull obſervations, and withall that my tenneyeares travell abroad hath taught me almoſt to forget my Native Language, and that the importunitie of friends made me put this to the view of the world which I thought ever to ſuppreſſe, as being for the moſt part compoſed in the Countrey, farre from the converſation of the learned which is the cheefe helpe to the perfectioning of ſuch workes; he is one I ſay, that will then give ſuch a Candide cenſure of me and it, that the moſt rigide Critick will be ſtrucke dumbe from Calumnie; But before I leave him, let him give me leave to tell him ingenuouſly, that to him onely I preſent this worke, and promiſe that ere long he ſhall be gratified with a preſent farre more worthy of his excellently well qualified goodneſſe. As oppoſite in all the former expreſſions to the courteous, I addreſſe my ſelfe to the carping Reader; He is not a naked but a ragged pretender to all wit and learning and hath a ſmattering of many ſome things: He is ſo conceited of himſelfe that he is not content to diſcommend ſome of the parts and members of another mans creature, as not elegant enough or uniformely compoſed, but will lay moſt vile and infamous aſperations on the whole body of it whilſt in his owne conſcience he findes his to be but prodigious monſters, if ever he had a ſparke of *Promethean* fire in him to give a ſhort life to any thing: When hee meetes with any ignorant men, then the Peacockes taile of oſtentation ſpreads abroad and they ſilly creatures admire the Varietie of its colours even to the diſparagement of more perfit and more ſweetly ſinging Birds; but preſently that falls, and the moſt ignorant then perceive the harſhneſſe of his note: He feedes all the world with large promiſes of ſome rare worke to proceed from him ere long, and thereby hee ſo long feedes and drinkes; till both he and it and his name

doe

doe all die: and none to ſing his *requiem*; Now being loath to reſuſcitate ſo peccant a humour, I leave him too without an Epitaph in hope never to heare of his ſucceſſion or his ghoſt wandring after this.

For the ignorant Reader, hee hath ſuch a qualitie, to make himſelfe appeare wittie, that he will commend every thing that he doth not underſtand and ſo I am ſure of his approbation; but *Laudari ab indocto vituperari eſt*. Wherefore I leave him to admire and wiſh for better proficiencie. Laſtly, to the view of all in generall; I expoſe this booke into the world; upon this confidence that if the moſt diſcreet and Iudicious give it but that auſpicious approbation, that many worthy and learned gave it before it ſufferd the Preſſe; for the reſt my care is taken; yet ſhall I to all (but in a different manner) ever be

A Well-wiſher.

D. P.

The Authors Friend to the Booke.

GOe ventrous booke, thy ſelfe expoſe
To learned men, and none but thoſe;
For this carping age of ours
Snuffes at all but choyceſt flowers,
Cul'd from out the curious knots
Of quaint writers garden plots;
Theſe they ſmell at, theſe they ſavor,
Yet not free from feare, nor favour:
But if thou wert ſmel'd a right
By a noſe not ſtuft with ſpight,
Thou to all that learning love
Might'ſt a fragrant noſegay prove,
So content thee, till due time,
Blaze thy worth throughout this Clime.

TO

To the curious Reader.

THough in the former leaves you may descry
The Sum of all this Book, drawne to your eye,
In succinct perspective; yet if you trace
A little farther, and survey each place
As it in all dimensions, colours, Art,
Is measured out; O ! then it would impart,
That true content that every man enjoyes
Betwixt things Reall, and fine painted toyes:
Most Sciences Epitomized heere
Are as the Noonedayes light set down most cleere;
With other rarities, to yeeld delight,
If thou but daigne to reade the same aright.
How er'e thou think, or speake, my comfort's this,
They'le speak themselves wel, though thou speak amisse.

ERRATA.

What Errors have Escapt in this booke, either in the Quotations, Omission of Words transplacing, or the like, let them be imputed to the Transcriber, And shall be mended Godwilling.

97-0

PErcurri librum hunc, cui inscriptio est Varie-
ties, *&c. nihilque in eo contra Catholicam fidem, aut bonos mores inveni.*

THOMAS WEEKES R. P. D.
Ep^o. Lond. *à Sacris.*

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